JANUARY

SEMI-TROPIC CALIFORNIA AND SOUTHERN CALIFORNIA HORTICULTURIST.

LOS ANGELES, CAL.
CARTER & RICE,
PUBLISHERS

VOL. III. 1880. No. 1

THE CHEAPEST

—AND—

BEST

GROCERIES

—AT—

GEO. D. ROWANS,

Baker Block,

Los Angeles, Cal.

LANDS FOR SALE.

80 ACRES of excellent fruit and vineyard land, one half mile from city limits. Elegantly located to divide into small tracts of 5 to 20 acres each. Streets on three sides. 20 acres under fence. Small house and out-houses. Title U. S. Patent. No better bargain in the country.
Price, $40 per acre.

10 ACRES of land. Beautiful suburban home on Main street. Two good houses, barns and out-buildings, the entire tract set out with the choicest varieties of semi-tropical and deciduous fruits, a large quantity of imported plants and shrubery. Improvements worth double the amount asked. Price, $6000.

30 ACRES on Washington street. Beautiful vineyard or fruit land. Elegant view of the valley. Splendid place for a business man to build a home. Very choice bargain. Price, $1100

320 ACRES farm land in the San Jacinto Valley, 12 miles from R. R. Station, in rapidly improving country. Well adapted to fruit and vines as well as grain. Water in great abundance 14 to 18 feet from surface; no better farm land in the state. Price, $2000.

The above are only a few from the many pieces of Real Estate upon our books for sale. We are offering better bargains than ever were offered before. No better time than the present. Address:

A. F. White & Co., Real Estate Ag'ts.
Rooms 3 & 5, Odd Fellows Block. Los Angeles, Cal.

S. HELLMAN,

No. 95 Spring St.

Has received a large and complete line of

Holiday Goods,

Books, Stationery, Fancy Goods, Toys, Fine Hardware, Soaps, etc.

A. LUSK & CO.,

COMMISSION MERCHANTS,

Wholesale dealers in green, dried and canned fruits, and general farm products. Their long experience in the business, and high, honorable dealing, entitle them to the patronage of all shippers.

534 & 536 Clay St. 539 & 531 Merchant St.
SAN FRANCISCO, CAL.

1880.

The Semi-Tropic California and Southern California Horticulturist consolidated, enlarged and improved.

Illustrated every month, with views of California, her business houses, homes, gardens, landscapes, rare plants, trees, etc.

A large corps of writers secured from among the most successful and practical farmers, orchardists, gardeners and stock-raisers of our country.

No pains or labor will be spared to make the Semi-Tropic California a valuable magazine in every household on the Pacific Coast.

As an emigrant's guide to California, our magazine will be invaluable, as we make a special feature of giving accurate and truthful information about our State, her resources, how to come, and advice after the emigrant arrives, at our office.

The Semi-Tropic California will be handsomely printed, on book paper, in elegant style, and will be preserved in every household appreciative of the beautiful in the art preservative.

The terms will be placed at the very low rate of $1.50 per year, in advance.

Address:

CARTER & RICE,
Los Angeles, Cal.
Room 1, Baker Block.

EVERYBODY

Knows or should know that

The Grange Store

—IS—

Noted for its Low Prices

—AND—

Choice Groceries.

Highest Prices Paid for all Kinds of Country Produce. Gilt Edge Butter a Specialty.

SEYMOUR & CO.

G. B. Sanguineti, Los Angeles. | A. Vignolo, San Francisco.

La Esperanza Store.

SANGUINETI & VIGNOLO.

Wholesale and Retail Dealers in

GROCERIES, PROVISIONS,

WINES AND LIQUORS.

COMMISSION MERCHANTS.

☞Highest price paid for all kinds of country produce.

108 Main Street,

Opposite Court House. **Los Angeles.**

AGENTS WANTED

to canvass for the

SEMI-TROPIC

CALIFORNIA.

To whom we will pay liberal cash commissions.

Ladies or Gentlemen.

Address,

CARTER & RICE,
LOS ANGELES, CAL.,
Room 1, Baker Block.

Clearing out Sale

—OF—

FRUIT AND ORNAMENTAL TREES.

I offer my whole nursery of Northern, Semi-tropical and Tropical fruit and ornamental trees, shrubs, and plants for sale at half price.

Fine Orange trees budded on three to four year old roots in the best kinds at eighty dollars per thousand, ten dollars per hundred, or eight for one dollar.

Every bud warranted and complete satisfaction guaranteed.

The finest collection of new and rare plants.

American, Italian and Japanese Persimmons, fine buddings, from eight to ten dollars per hundred.

F. GRELEK,

Depot on First St., between Main and Spring Sts.
P. O. Box 233. Los Angeles.

SEMI-TROPIC CALIFORNIA

DEVOTED TO AGRICULTURE, HORTICULTURE, AND THE DEVELOPMENT OF SOUTHERN CALIFORNIA.

Vol. III. LOS ANGELES, CAL., JANUARY, 1880. No. 1.

HOME TOPICS.

By Faith Rochester.

SUNDAY morning in many homes is the worst morning in the week. On other days work and school require early rising and prompt action. The regular routine is usually broken in upon on Sunday morning. All wish to have their sleep out. The mother of young children has little to share in this extra sleep. Indeed, it is hard to see where she can get any chance to make up for broken rest and abbreviated hours of sleep, for babies wake up as early as usual on Sunday mornings, and the actual cares and labors of that day, which is to be one of "rest" to some of the family, make it impossible for the home-manager to doze away the morning hours. She remembers a bit of mending which surely ought to have been done in preparation for a Sunday-school outfit; shoes that have lost some of their buttons; a little suit should have been sponged with ammonia water before this Sunday came; the fact that Katie has not a single pair of clean stockings left in her drawer, or that she has forgotten to have John get himself some new collars—something of this kind is pretty sure to haunt the weary brain of the mother of a numerous and growing family. She blames herself for neglect when she ought not, and perhaps feels more or less of discouragement.

Let me, right here, put in a word of sympathy and encouragement. I know what I am writing about, having had abundant experience. Let no woman, overburdened with cares and labors, imagine that her case is peculiar, and by no means let her envy childless mothers or unmarried women who have more quiet and leisure. There is no other way out of the hard place in which she finds herself, except to go ahead and do the best she can and have hope for the future. With intelligent care and judicious training now, these little ones who add to the present labors, will all, in a few years, become helpers. But they will not grow up to it naturally, they must be trained by "line upon line and precept upon precept," and especially by good example.

When I advise the weary and disheartened mother to persevere and simply do the best she can, I by no means intend to advise her to try to do all the work she can. That may be the worst she can do, by breaking down her health and adding to the cares and toils of others. There is such a thing as wise selfishness. I remember an old lady whom I met at a railroad station several years ago. Observing my two little children, she began to ask me about my family. She was the mother of thirteen children, and, in answer to my inquiries, she told me that the hardest time to get along with her children was when there were only three of them, as none of them were able to help her. I have found, in my own experience, that five are more easily taken care of than two small ones. What a relief it seems when some of them are old enough to dress themselves, and to get ready for church or Sunday-school with only a very little help and watching. Soon they are able to attend to their own buttons and darning. By this time they help about the house-work, and mama begins to find some rest on Sunday, as well as the others. When there is a good deal to do on Sunday morning, as there is apt to be where there is a large family and insufficient help, it is only fair that the father of the family should lend a hand about the house. Why cannot he dress one or more of the little ones? He ought to be able to help about all that buttoning and tying which usually fill up the mother's time, and make it such a tiresome thing for her to get ready for church herself, or to fit the little ones out for Sunday-school.

Evidently it is the part of wisdom to have everything done in preparation for Sunday that can be done in the week preceding. Our Puritan foremothers set us a good example in this respect. We think they carried matters too far at times, but we do well to learn what we can from their example. If the children can have their baths and clean clothes on Saturday afternoon or evening, it is so much clear gain. If there is cold meat for slicing or for warming over, plain baked pudding and plenty of the most nourishing bread, and vegetables of easy preparation without the mother's labor, it is a good thing.—*Am. Agriculturist.*

HOUSEWORK THAT MAY BE DONE SITTING.

I HAVE been told that the house of Mr. Edison, the wonderful inventor, is a museum in its multitude of labor-saving contrivances; but Mr. Edison is not the inventor of a high stool for the kitchen, which humble piece of furniture, when properly introduced into the economy of the work, will prove to be a source of salvation to many a woman tired to death from being so much on her feet. One can do with ease many household tasks, which are usually done in a standing posture, and the facility for working while seated upon a stool is, of course, greatly increased by practice. With an ironing-board well adjusted at both ends, and high enough so that the knees will pass under it, one may do a large ironing, only rising to change the iron. And if one is too much of an invalid for that, she can have a small charcoal stove, which will heat the irons, placed at her hand. With such contrivances, ironing becomes "fancy work," for a lady may do it in her parlor with ease. The charcoal or kerosene stove is very nice for "doing up" fine and elaborate pieces that require much time and skill. An improvement on the ordinary high stool or low is an adjustable top, connecting with the stool top by means of a strong screw, by which the second top may be raised or lowered at pleasure; in fact, something like a piano stool, only it should have three or four legs and cross-pieces for the feet to rest upon. Such a stool is especially convenient in cleaning and polishing windows. The reason why very many tired women do not sit more at their kitchen work is because the ordinary chair is too low, and it is impracticable to bring tables and shelves down to the level of chairs. But the high stool and the adjustable stool make the thing pleasant and practicable.—*Rural New Yorker.*

SEMI-TROPIC

CALIFORNIA

AND

SOUTHERN CALIFORNIA HORTICULTURIST.

AN ILLUSTRATED MONTHLY

Devoted to Agriculture, Horticulture, and the development of Southern California.

Terms $1.50, per year, in advance, postage prepaid.

Address, CARTER & RICE, Los Angeles, Cal.

CIRCULATION - - - - 6250.

IN severing my connection with the SOUTHERN CALIFORNIA HORTICULTURIST, it is but proper that we say a parting word to the readers and friends of the Society who have given us so much valuable assistance during the past two years.

Nearly three years ago, the Horticultural Society was organized, and in the autumn following, 1877, the first number of the HORTICULTURIST was issued. The work of establishing a new publication at any time is a hazardous one, and in times of a financial depression like those witnessed during the past two years, when prices of everything have been on a decline, the undertaking becomes extra hazardous. Notwithstanding all the difficulties encountered, the HORTICULTURIST and the Horticultural Society have been self-sustaining, until within the past six months, when expenses exceeded receipts by several hundred dollars. Under the circumstances, a change became desirable, arrangements were entered into with Messrs. Carter & Rice to assume publication of the periodical. A broader field will be occupied by the publication under its present management, and the well-known ability and business enterprise of the present publishers warrants us in saying that by the change the HORTICULTURIST will become more firmly established, and the interests of Southern California will be carefully guarded. We commend the present publishers to our friends everywhere.

In retiring from editorial work, we return thanks to our friends for the assistance they have given us, and to the brethren of the press for the uniform kindness which we have ever received at their hands. L. M. HOLT.

WE SEND this number free to a great many who have been subscribers to the HORTICULTURIST, and whose terms of subscription have expired, requesting them to send in their names and address, inclosing $1.50 for 1880, as we will not enter names on our subscription books unless paid for in advance.

WE MAKE our bow, with hat off, as we take our seat in the editor's sanctum. If we make no promises of the wonderful things we intend to do, we will not break any. We intend to do our "level best" to edit and publish a paper, in every way acceptable to a generous and hospitable people, devoted to their interests and our own; a paper for the home of every Californian who is interested in the development of her wonderful resources.

We aim to help you make home beautiful and pleasant; agriculture and horticulture practical and profitable.

Appreciating the importance of accurate knowledge and experience, we have secured a corps of writers from among the ablest experimenters, most practical and successful farmers, orchardist gardeners and stock men in the country. We ask that you, dear reader, will "pass our imperfections by," put your shoulder to the wheel, and help us in a common cause.

THE REASON why Southern California has not been so inviting a field for immigrants. There has been little Government land open for settlement under the pre-emption and homestead laws. The most valuable tracts are included in the old Mexican grants. The owners of these grants were, in some instances, so rich that they did not care to dispose of any portion of their property. In others, they were land poor, and could not find the funds necessary to have section lines run and surveys made. These large acres were assessed at very low figures, and there was no incentive to dividing them up for settlement.

But times have somewhat changed. The land poor in some cases have become landless. The provision in the new Constitution requiring unimproved land to be assessed at similar rates to improved land of like character, will compel the large ranch owners either to cultivate the land themselves or throw it on the market and give others such an opportunity. It is now assumed as a fact that the so-called land monopolists will find it to their interest to cut up their ranches into small holdings. There is already a movement in that direction. Some of the very choicest lands in the State are now offered for sale in tracts to suit, at very low prices.

The hard times has compelled nearly all the large ranch owners to close out. There never was, and never will be again, such a chance to buy land in Southern California as cheap as at the present.

A PROFITABLE CROP.

Mr. Henderson, of Riverside, who has a four-year old vineyard, states that this year he will clear from it, over and above all expenses of cultivation, picking, curing, boxing, etc., $140 per acre. Where is there another crop that will pay as well?

A SERMON OUT OF THE PULPIT.

WE would urge upon our farming community the necessity of *work*, constant WORK, incessant WORK on their farms. And more especially to the new comer would we point to the necessity of working if he would succeed. That we have a soil as rich and productive as the sun ever shone upon, none deny; that we have more bright days of health giving weather in which to work out doors none can deny. The tendencies are to laziness here where everything grows and produces so abundantly and all with so little labor.

When so much can be done with so little labor, what an incentive it should be to double our energies and go industriously to work and thereby make ourselves a home, an independent, happy home, where you can sit beneath your own vine and fig tree with none to molest or make you afraid.

What we want is more muscle and less speculation; more making your fortunes grow from a spontaneous soil, and less sand lot speculation; more work and less loafing around the village street corners. This is our first sermon, we make it short, hoping to hear of good results.

PROPAGATING ROSES.

It is always very desirable with those who have a few choice roses to have some extra ones, either to give a friend or to enlarge the flower garden.

HOW TO DO IT.

Select ripen shoots, well branched near the ground (preferring those limbs that if cut off would make a nice bushy plant), and with a sharp knife back or notch the under side so that when bent will come in contact with the soil. These notches should be five or six in number, though to the heart or pith. Now, bend the limb down, and with the knife slit the limbs 1½ inch up towards the end of the top, just below the notches, and be careful not to break the limb; cover two inches in the sandy soil and lay a brick or stone over it to keep it down. Keep soil moist, and by spring the roots will have formed often four and five inches long, when it can be safely removed. The most difficult roses root easily this way.

WE KNOW of no better plan for the general improvement of our farming interests, than an exchange of opinions, as to what to raise, and how to do it. Opinions based on actual experience. Practical farmers will largely aid those of less experience; and those of less experience can often show to their more wise neighbor, better and more profitable results brought about by entirely different processes.

We cordially invite every farmer in Southern California, or elsewhere, to send us his observations in any and all branches of farming, that we may give the information to our readers.

☞ SUBSCRIBE for the SEMI-TROPIC CALIFORNIA, $1.50, per year, in advance.

AN OPEN LETTER.

Ed. Horticulturist: The disposition of this year's crop is principally over, and the laying of plans for another year is at hand. Sufficient rains have fallen to put all implements in the field for work. Fruitists are preparing land for new plants, and the general routine of prunings and clearing up will be on hand, and multiplying their orchards and vineyards of better and finer sorts. The result of experience as well as experimental fruits in our various soils, location and varieties adapted in our valleys, foot-hills and coast range, has to a great extent given the propagator sufficient idea as to what fruits are suitable for his soil and surroundings, so at the time to plant he knows at once what to use. Still, to the nurseryman, and those who desire to plant out new varieties of both semi-tropical and general fruits, a most suitable time is before them. The work of experimental gardens is timely. It has been carried on in a small scale by many in their own way, and the success so far has shown itself throughout the State. The laying aside portions of land exclusively for that purpose seems to take well by many patrons, which, if carried out and sustained would in the end create a greater interest, and good results follow from such work. The interest of horticultural societies are growing. The formation of the southern society has wrought a great influence both throughout our State and the eastern shore, and called responses of good cheer throughout Europe, giving the subject of semi-tropical fruits a wide range. County societies are being formed, and already a State society is under way, adding weight and concentrating ideas from all lovers of horticultural work. This work will stimulate the agricultural societies to add more to the interest of upholding the products of our soil and furthering the interest of her people rather than to racing exclusively above other interests of our State wants. The overplus of fruits in our markets can be remedied by discarding so many poor and unmarketable varieties. Keeping a lesser number, and those of the best, allowing none but good, selected kinds to enter; the balance use at home for feed of stock, etc. This subject can be fully discussed in various societies, and be the means of calling out additional varieties that have proved useful to the propagator and the State at large.

The occupation of small farms and breaking up of large ones is having a good effect in building up societies and increasing homes where all were desolate before. We are seeing this work extending and coming down in a more legitimate way of our eastern farmers. Dividing our land in smaller sections, and introducing diversified crops instead of wearing out land by one crop system; so if there is an over production of one crop, other sorts can fall back on it; also manage to have some marketable commodity to dispose of, then go empty-handed. The raising of fodder, saving straw for winter use, applying mulch in spring time, saving all refuse of house in a compact heap, and drawing the manure on land to keep it in good heart is being followed more closely than in years gone by.

Geo. Rich.

Sacramento, Cal.

Climate.

Meteorological Summary at Los Angeles, Cal., for the years ending October 31, 1878 and 1879, as indicated at the top of the several columns, obtained from the records of the Signal Service, United States Army:

DATE.	Monthly mean barometer (inches), Reduced to sea-level.	Monthly mean Thermometer.	Mean relative humidity (per cent.).	Maximum Thermometer.	Minimum Thermometer.	Range of Thermometer.	Prevailing direction of wind.	Amount of rain. Inch's & hundredths
November, . 1877	30.009	62.1	46.5	86.0	45.0	41.0	N.	0.45
December . . .	30.195	55.3	36.4	81.0	36.5	44.5	N.	3.93
January 1878	30.066	54.1	61.0	72.0	37.0	35.0	N.	3.34
February	0.398	54.0	19.8	74.0	41.0	30.0	N.	7.68
March	29.993	56.8	72.7	76.0	41.0	35.0	N.	2.57
April	29.902	58.0	19.8	80.0	41.5	38.5	SW	1.71
May	29.917	64.0	70.4	89.0	47.0	42.0	SW	0.60
June	29.903	72.0	72.0	81.0	47.0	34.0	SW	0.07
July	29.858	67.0	70.2	88.0	52.0	36.0	W.	.00
August	29.866	68.2	68.9	89.0	54.0	35.0	W.	.00
September . . .	29.914	65.5	62.7	103.0	50.0	53.0	W.	.00
October	29.945	62.1	60.0	91.0	43.0	48.0	W.	0.14
Annual means. . .	29.948	63.4	64.10	83.0	44.6	39.3	N.	20.54
November. . . 1878	30.027	57.5	58.0	81.0	37.0	44.0	N.	.00
December . . .	30.062	53.0	44.1	88.2	30.0	58.2	NE.	4.70
January 1879	30.110	51.3	63.8	73.7	36.0	37.7	NE.	3.59
February	30.073	54.8	73.9	80.0	38.6	41.4	NE.	0.97
March	30.078	57.7	50.8	99.0	43.5	56.5	SW.	0.49
April	30.014	58.2	66.5	84.5	42.2	46.3	SW.	1.19
May	30.018	61.8	60.0	97.0	43.0	54.0	SW.	0.24
June	29.915	65.8	64.7	103.5	50.5	50.0	W.	.04
July	29.906	66.6	69.0	84.5	52.0	32.5	W.	.00
August	29.839	69.0	67.5	97.5	53.0	44.5	W.	.00
September . . .	29.915	68.8	64.4	101.0	47.0	54.0	W.	.00
October	29.989	63.4	55.1	96.5	42.5	51.0	NE	.03
Annual means . . .	29.996	60.5	63.4	90.9	42.9	48.0	W.	12.14

An old gentleman of over fifty tells us that after rambling the world over, he has never seen a place that he would exchange for his California home. Growing enthusiastic, he says: I would rather live here in this delightful climate on this rich soil a poor old man, and carry water in buckets to the top of this hill to irrigate and make it produce luscious fruits and blossom with roses than to live a young man, rich and well to do in the eastern States. I would not exchange my home here for any other climate under the sun.

AS OTHERS SEE US.

Prof. R. Von Schlagentweit says: "The climate of California resembles in general character that of Italy, but has not its objectionable effect of depriving the people of the disposition and power of energetic mental and physical labor. The *dolce far niente* of the Southern Italy is unknown in California." Samuel Bowles wrote, "There is a steady tone in the atmosphere like draughts of champagne, or the subtle presence of iron. It invites to labor, and makes it possible. Horses can travel more miles here in a day than at the East, and men and women feel impelled to an unusual activity."

C. L. Brace says: "It is the most exhilarating atmosphere in the world."

The London *Spectator* said, editorially, that the climate of California is like that of Greece cooled, and the climate of Tasmania is that of England etherealized, and the two are the nearest perfection in the world.

It would be a matter of surprise to our eastern friends to read a bill of fare of dinner such as we set down to Christmas day. In addition to oysters, soup, salmon, turkey, etc., at the bottom of the bill of fare (it ought to be at the top), delicious grapes, strawberries, peaches, apples, walnuts, almonds, raisins, etc. And then a further surprise would appear when they were informed that peaches are of such infinite variety in Los Angeles, that they are ripening from the fifteenth of June till the first of December, while grapes are abundant from July to December. Oranges are in market ten months in the year, and potatoes are gathered every month. Is not such a land attractive to lovers of luscious fruit?

Winter in Southern California is a misnomer; we have no winter; our seasons are really only three, spring, summer and fall. The large majority of our trees are ever-green, but few trees shed their leaves; they being mostly fruit trees of the deciduous family, whilst flowers of all kinds bloom out of doors all the year round.

Our rains come in the months from November to May, and then it is not as our Eastern friends imagine, a constant mizzle, drizzle; far from it—an occasional rain, and that generally in the night, with bright, sun-shiny days — a cloudy day is almost unknown during the year.

WORK FOR JANUARY.

ORANGE AND LEMON ORCHARDS.

THE ground should be thoroughly cleared of all weeds in crops; and plowed and harrowed in a neat and workman-like manner. This is a good month to prune the orchards. Take off all the suckers from the trunk of the trees, and remove all the water sprouts from the tops; cut back all branches until the tree is as evenly balanced as possible, presenting to the eye a symmetrical appearance; cut away all dry, or partially dry, limbs or twigs from the tops, leaving the branches of a bearing orchard when viewed from underneath to appearance open, smooth and clear, thus providing for air and sun-light. If not done before, either thin out for market or prop up the heavily fruit-laden limbs, to prevent breaking the branches and ruining the shape and symmetry of the orchard. If the trunks of the trees are moss grown, or black with fungus or black rust or cephir, wash with a stiff brush with a mixture of whale oil, soap and water, until they are clean and bright.

Horticulture.

SEMI-TROPIC FRUITS.

IT is evident that the fruit that will take the lead will be first, grapes; second, oranges; third, olives; fourth, lemons; fifth, apples, with peaches, apricots and nectarines following in the rear. The success that has attended raisin curing is very gratifying, and the result of the news of the recent devastating floods in the raisin-curing districts of Spain has been to stiffen the market and to make a sale of all that have been cured here as soon as they are packed. The Riverside raisins captured all the premiums at the Horticultural Fair, and were considered by experts equal to any imported. Orders for raisins made in Los Angeles and San Bernardino counties are coming in from Salt Lake and other Eastern markets. The amount cured this year has not yet been made up, but will be much larger than last year and will be doubled in 1880. On the whole, the fruit-growing interest is progressing rapidly and with few exceptions successfully. The Arizona trade affords an excellent outlet for all kinds of green and dried fruit. With the extension of the Southern Pacific Railroad to the Tombstone region, the shipment of fruit will be greatly increased. This section of country is fortunate in producing fruit at all seasons of the year, and into Arizona the shipments will be continuous in summer and winter, and bring a large amount of money into the country. The omens of the future are auspicious and encouraging to the orchardists and vine-growers of Southern California. The flush times that prevailed here a few years ago appear to be slowly coming back, and coming back to stay.

PLANT TREES EARLY.

IN those parts of our State where the November rains were sufficiently abundant to moisten the soil, tree-planting is to be commended. If one visits the nurseries at this season all is a scene of activity and of seeming confusion. There is more to do now among the nurserymen than at any other season of the year. The shrubs, shade trees, fruit trees and various ornamentals are now being dug and "heeled in" for continuous sales and shipments through the winter. Although we have found that tree-planting may be extended later in the spring than was formerly thought possible, yet trees doubtless thrive better and make a larger growth next season if planted as early as possible after the rains begin. Then, also, the man who buys his trees early in the season has a choice from a larger stock, and is more likely to obtain the kinds he wants.

The farmers of our northern coast counties usually send orders early—almost before trees can be dug in the valley nurseries. In our mountain regions the roads become impassable so soon that it is necessary for purchasers to have their trees shipped at as early a date as possible. Small family orchards are increasing very rapidly through Mendocino, Humboldt, Del Norte and Siskiyou. For this fall planting and for long shipments, hard-fibred rather small trees are to be chosen. Some trees are too much irrigated during their growth to succeed well on dry land, for the wood becomes too soft and sappy. Well-ripened wood and a multitude of roots are worth more than a large top and many leaves.

The soil should be well prepared for fruit trees by plowing and cross-plowing, by thoroughly pulverizing it and by digging the holes deep and wide. In planting, aim to just cover the collar of the tree, or the place where the root ends and the trunk begins. Keep weeds down, give thorough cultivation, and mulch during the summer if it is a dry season.—*California Horticulturist.*

GRAPE VINEGAR AND CIDER VINEGAR.

Vinegar from grapes may be made as follows: The wine is stirred into a large tun which contains lees, and when thoroughly mixed is squeezed by pressure through cloth sacks into an iron-bound vat, whence, after standing some hours, it is drawn off into casks for fermenting. These casks have only a small opening at the top, and are kept at a temperature of 77 to 86 degrees Fahrenheit. After fourteen or fifteen days, the vinegar, now formed, is drawn off (cautiously, so as not to disturb the sediment) into barrels which contain birchwood chips. This clarifies it, and after standing a few days it may be syphoned off into the casks in which it is to remain. The residue, containing "mother," is employed to ferment all the subsequent liquor by simply pouring the latter into the cask that was used previously. To make vinegar from cider, the following receipt is recommended: Place in the cider-barrel a small piece of bread soaked in vinegar, or else a piece of sour dough. Add about a pint of vinegar, and set the barrel in a warm place (75 to 85 degrees Fahrenheit). Malt will produce the same effect as the dough, and so will yeast and lean meat. The vinegar will clarify itself by settling, and on being drawn off from the top by means of a syphon, a clear liquid is obtained. A good table vinegar may be obtained by dissolving three pounds of white sugar in a gallon of water and fermenting with yeast.

"He made too free with it when he was here before!" was the way a mild-mannered Atlanta (Ga.) man met the suggestion that General Sherman should be given "the freedom of the city."

"Edward, you have disobeyed your grandmother, who told you just now not to jump down those steps." "Grandma didn't tell us not to, papa; she only came to the door and said, 'I wouldn't jump down those steps, boys,' and I shouldn't think she would, an old lady like her!"

The lap of luxury—when the cat gets cream.

HAPPY HOMES.

A writer thus expresses himself with regard to this region:

HAPPY HOMES, HEALTH AND WEALTH.

For these combined, select a farm near the beautiful city of Los Angeles—"City of the Angels." There you will find mingled products of the northern and semi-tropical climes. The farmer may return from his wheat and barley fields to his cottage, shaded by orange groves, in the midst of luxuriant vines, palms, figs, olives, bananas and dates.

Intelligent and enterprising families, from all parts of the country, are centering there; churches and school-houses are being established, and everything tends to make agreeable social society and homes of contentment.

Constant sea breezes of summer fan you all day, and the nights are refreshingly cool. The climate in winter is mild, as the green herbage and young orange trees uninjured by frost attest. Meanwhile, there is a large profit, a fortune, in the very adornments of your home, in the growing vines and trees.

A BISHOP'S FALL.—The following story is told of Bishop Peck, of the Methodist Episcopal Church: "The bishop is remarkable not only for mental, but also for physical weight, and he is very witty withal. Not very long since he was stopping all night at the house of a friend. About midnight the bishop attempted to roll over, when down came the bed with a crash upon the floor. The gentleman of the house rushed up with a light and cried out: 'Bishop, what's the matter?' 'Nothing at all,' said the bishop. 'You go down and tell your wife if I am not here in the morning to look for me in the cellar.'" The force of this story and of the bishop's fall will be better appreciated when it is known that his weight is between 350 and 400 pounds.

DURING 1877–8, the number of ejectments for the non-payment of rent in Ireland was 1,749, of these, 345 were made under writs, and 1,404 under civil ejectment bills.

CALIFORNIA ILLUSTRATED.

OUR February number, and each succeeding number, will be illustrated with prominent views of Southern California, designed and engraved especially for this paper.

NOTICE.

The Board of Directors of the Southern California Horticultural Society has made arrangements with Messrs. CARTER & RICE, of Los Angeles, to publish the HORTICULTURIST, and they will publish it in connection with the SEMI-TROPIC CALIFORNIA.

On all matter or business pertaining to the paper, address CARTER & RICE.

All business letters connected with the Horticultural Society should be directed to N. C. CARTER, Secretary.

Emigration.

SOUTHERN CALIFORNIA offers greater inducements to people seeking new homes in the West than any other part of the United States. We invite every one interested in California to carefully read our articles, as we can vouch for their truthfulness. We will send occasional numbers of our magazine to any address in the East, free. We will answer all questions through our paper or by mail, as requested, in reference to California. Our next number will have a complete guide about how to get to California, what it costs, and what to do when you arrive. We have office rooms in Baker block, Los Angeles, where all visitors and emigrants are invited to call and make themselves at home, as we have files of all the principal papers published in the State, with maps, charts, and information about the country, all free. We have no lands for sale, nor are we interested in any way, shape or form in the sales of any; on the contrary, we are free, and will carefully assist and advise every new-comer who come to us for advice and information.

LOS ANGELES COUNTY.

Los Angeles is not entirely exceptional in the number and variety of her products. There are other soils and climates in California where the growth of cereals and fruits—semi-tropical and of the temperate zones—compares favorably, so far as development has progressed. That county may, however, be pointed to as a model, to indicate the blessings common to the State. Truly, Los Angeles can feel proud in pointing to the enumeration of Nature's bounties. Some of these are wines, olives and wheat; the orange, the citron and the lemon; apples, peaches and pomegranates; barley, oats and potatoes; corn, wool and sugar; coal, gold and petroleum; honey, lard and bacon. The extensive vineyards of the county, next to its orange groves, attract prominent attention. From these the grapes can be cured into raisins as well as manufactured into wine; and on the whole Los Angeles county is not only self-supporting in respect to the products of the earth, but is a liberal exporter besides.—*S. F. Chronicle.*

It's not at all surprising that Adam fell. He had Eve constantly about him talking about a nude dress, and she had one every day.—*Eugene Field.*

Young men and maidens expect to take a good deal of comfort next February. Although the shortest month in the year it will have five Sunday nights in it.

HOW TO ACQUIRE A HOME IN CALIFORNIA.

WE have always held to the idea that any person with moderate means, and in many instances without any means, can by only ordinary skill and management, acquire a home in a few years in any part of California. In Southern California today, there are hundreds of thousands of opportunities, where a man with a family and little or no means, by persistent attention to his own business, by care and economy in executing his plans, which if laid out with ordinary common sense, can acquire a comfortable home in a few years. The following is one instance, and will serve as an example, and in similar trials we will guarantee that ninety per cent. will be as successful as Mr. Killam has been. When a man has a little money to begin with, and husbands his resources and time, the average result will be still better:

Mr. N. P. Killam, near Downey City, came to Los Angeles in 1874, without a dollar. Since then he has bought and paid for twenty-two and a half acres of land, from the proceeds of which he has paid the following amounts:

Twenty-two acres of land	$976 00
House	400 00
Trees	30 00
Cows	126 00
Horses	225 00
Harness	48 00
Wagon	225 00
Furniture	207 00
Fencing	50 00
Wells	52 00
Outhouses	48 00
Paid railroad fare	160 00
Paid freight on goods	40 00
Has also bought a good family library at about	50 00
Carpenter's tools, about	200 00
Total	$2,926 00

He has paid his taxes and settled for his newspaper promptly, without growling. Besides his improved place, he now has farming utensils too numerous to mention. During all this time he has supported a family of five persons respectably. He is now in debt only $175. If one man can accomplish what is set forth in the foregoing, then any other person can do as well, if he will perform the same labor.—*Southern Cal. Advocate.*

LARGE ALFALFA.

Very often we have spoken of the rapid growth of alfalfa in this section, and now we have a specimen in our office that we challenge any country to beat. It is one year's growth and measures nearly ten feet in length. It was grown on the farm of Mr. John Devenney, in Gospel Swamp, and without irrigation. We have known of cases where alfalfa has been cut for hay as many as seven times during one year, but never before have we seen a bunch that was allowed to grow for twelve months without cutting. This is another excellent test of the productiveness of the Gospel Swamp country.—*Santa Ana Times.*

As exchange assures us that land is worth trying. We had as lief try it as not.

A WRITER in the Detroit *Free Press* relates the following incident of prison life: In the paint shop there now is a man whom we shall call Jim, and who is a prisoner on a life sentence. Up to last spring he was regarded as a desperate, dangerous man, ready for rebellion at any hour. He planned a general outbreak, and was "given away" by one of the conspirators. He plotted a general mutiny or rebellion, and was again betrayed. He then kept his own counsel, and, while never refusing to obey orders, he obeyed them like a man who only needed backing to make him refuse to. One day in June a party of strangers came to the institution. One was an old gentleman, the others ladies, and two of the ladies had small children. The guide took one of the children on his arm, and the other walked until the party began climbing stairs. Jim was working near by, sulky and morose as ever, when the guide said to him:

"Jim, won't you help this little girl upstairs?"

The convict hesitated, a scowl on his face, and the little girl held out her hands to him, and said:

"If you will, I guess I'll kiss you."

His scowl banished in an instant, and he lifted the child as tenderly as a father. Half-way up the stairs she kissed him. At the head of the stairs she said:

"Now, you've got to kiss me, too."

He blushed like a woman, looked into her innocent face, and then kissed her cheek, and before he reached the foot of the stairs again he had tears in his eyes. Ever since that day he has been a changed man, and no one in the place gives less trouble. Maybe in his far away western home he has a little Katie of his own. No one knows, for he never reveals his inner life; but the change so quickly wrought by a child proves that he has a heart, and gives hope that he may forsake his evil ways.

SOUTHERN CALIFORNIA has been barred out from the rest of the world until lately. Now, that railroad communication has made us neighbors with the rest of the world, we are becoming acquainted, and many are changing their cold, wintery homes for our clime, where "December is pleasant as May," and the land as fertile as any the sun ever shone upon.

We will soon be connected by rail with the East, with at least two more lines of road and another ship line *via* the great isthmus canal.

The wise will see the great benefit of locating here now when a home can be had almost for a song.

'Twas Evarts thus I've seen my fondest hopes decay.

The time will come, says the Danbury *News* man, when all civilized nations will speak one language and drink one beer.

The man who dares stand up and knock the head off that senseless "la-wil," and kill that "viz," will some day be called blessed.

Agriculture.

LOS ANGELES COUNTY.

By John H Shields.

IN compliance with your request, I again undertake to contribute to the public store of the knowledge of Southern California. By Southern California is meant the six southernmost counties of the State. The county of Los Angeles will be exclusively the subject for the present; the other counties at another time.

I shall not in this paper give details of the various industries along the beach-line of Los Angeles county, such as the fisheries, the crystallizing of salt by solar evaporation, the keeping of hotels for visitors who seek a summer climate much cooler than the summer climate of the Atlantic beach, and more equable and somewhat milder in winter than the winter climate of Florida or of Southern Europe. Neither give details of the maritime commerce, of which Wilmington is the principal port; nor of the interesting probabilities of the practically incalculable expansion of that maritime commerce to follow the completion of the four transcontinental railways now heading for Southern California. Neither give the details of how Los Angeles county and Southern California are on the eve of an era of city building on a magnificent scale.

Receding from the beach of the Pacific Ocean bound county of Los Angeles, one crosses smooth, rich mesa or table lands of limited elevation. On these mesas, sheep-walks spread away from near the line of high ocean tide. Luxuriant wheat and barley fields billow on from near the limit of stranding ocean billows. Now that barley has become less profitable on these mezas, in consequence of lower prices for the grain, wheat is becoming more profitable, through better adapted varieties. And still more profitable are likely to become the near-ocean mesas, now that Mr. Ernest T. Gennert, the veteran beet sugar manufacturer of the United States, has ordered beet sugar works from Germany to be put up in Los Angeles county, and is making contracts for sugar beets. And as winter-planted crops on these mesas come to perfection without irrigation, it is strongly suspected that the sugar beet, which ought to be planted there in January, may eventually convert the near-ocean mesas into a series of flourishing sugar estates. Elaborate tests ought to be made there by plowing eighteen inches deep, thus securing deep aeration by the warm humid ocean air, the consequent condensation of vapor deep in the pulverized soil, the evolution of latent heat as one of the chemical results of condensation, and withal the quick germination of sugar beet seed planted in January, and the steady, rapid growth of the beet.

THE VALLEY OF ALFALFA.

After passing inland over the near-ocean mesas, one gently descends upon the nearly flat bottommed valley of alfalfa, corn, pumpkins, fruits, etc. The capabilities of this valley were profusely illustrated at the Los Angeles annual exposition of October, 1879. Thousands of visitors will testify, with me, of those illustrations, as follows: Alfalfa from the vicinity of Santa Ana, 10 feet high, John Devenney, exhibitor; an apple, the Gloria Mundi, from the same vicinity, 16¾ inches in girth. Six varieties of fall and winter apples and good raisins, by J. M. Halladay of Santa Ana. Golden Russets; Fall Pippins, 14 inches in girth; Ben. Davis, 13½ inches; Beurre Easter pears, 11½ inches; Beurre d'Anjou, 12 inches; Winter Nellis, 11 inches; Howell pears; also, grapes, strawberries, chestnuts and almonds, all by the Rev. Robert Strong of Westminster. Yellow corn, 11 inches long; popcorn nearly double the usual size of ear; chufa and canary seed, by J. W. Venable, near Downey. A pumpkin, weight 181 pounds avoirdupois, by J. R. Trueman near Downey. Hubbard squash, a pumpkin 7 feet in girth, weight 157 pounds; amber cane, first crop, 15 feet high; second crop, 12 feet high; Egyptian corn, all by J. F. Durrell of Florence. Nursery trees both deciduous and citrus; plums; all by G. D. Compton of Compton. Fine display of fall and winter apples by Joseph Kirk of Artesia, grown on the ranch of R. R. Haynes. A cheese, weight 160 pounds, by B. Machado and R. J. Valez, of Ballona. The Ballona valley is in some places similar to the valley of alfalfa, corn, etc. Returning to the latter valley, one finds that alfalfa is the most profitable soil product, and the dairy is the most profitable medium through which to convert alfalfa into money. In support of these two propositions, I adduce the result of an interview with the Hon. J. W. Venable, a Kentuckian, at one time a member of the California Legislature, and now the incumbent of the important office of Tax Assessor for Los Angeles county. Mr. Venable is a partner in an alfalfa dairy near Downey. Mr. Cheney, the other partner, attends personally to the business. I will now let Mr. Venable do the talking. This gentleman said: "Forty acres of alfalfa will maintain eighty cows the year through, and assure a constant and copious flow of rich cheese and butter, yielding milk for ten months in the year from each cow. But in order to reach these results, the land must be uniformly what is called good land here; the stand of alfalfa must fully occupy the ground; it must be mown and not grazed, and promptly mown as soon as a few scattering blooms appear, or from seven to nine times a year, according as the soil is by nature warmer or colder. Hay of other forage plants may arrest the flow of milk, but alfalfa hay stimulates the flow of milk only in a less degree than the extraordinary degree to which green alfalfa stimulates the flow. Alfalfa is green, and growing all year. The dairy season is exactly as long as the year. At 9 cents a pound, the present uncommonly low price of cheese, the gross income of our band of cows averages 32 cents per cow per day; 64 cents per acre per day for 300 days in the year, total amount $184 per acre per annum. The offal of the dairy fed to hogs, and the increase of the herd add to the income. Hogs, as an adjunct, pay better with the alfalfa dairy than with any other, because the hog thrives on alfalfa alone, obviating the necessity of going outside of the dairy offal, and of the cheap fodder of the dairy cows for hog feed. The indispensable pre-requisites of the given results, in addition to the pre-requisites already given, are first-class cows, and the best management. Alfalfa is the most profitable soil product of our valley, and by the dairy cow it is most profitably utilized. Alfalfa is to be preferred to other soil products, as much on account of its certainty as a crop as on account of its constant and rapid growth and surpassingly nutritious qualities. It never fails. The accession of alfalfa is as sure and as steady as the accretion of interest, and the investment in alfalfa-producing land is as regular in its returns as that in United States bonds."

ORANGE GROVES AND VINEYARDS.

Leaving the valley of alfalfa, corn, etc., one gently ascends as he advances inland, and is soon upon the belt of plains, valleys and mesas whereon are Los Angeles city, Fulton's Sulphur Flowing Wells, Anaheim and Orange. The orange groves and vineyards of this belt are too widely known to require even a cursory notice in this place. I shall pass on with a few illustrations brought together at the late Exposition.

There was a Mediterranean sweet orange tree, one year old last May, on a four-year old root, 6 feet high, 3 inches in girth, bearing three oranges, four others having been taken off; a Navel, one year old last May, on a stock several years old, 7 feet high, 4 inches in girth, which fruited this year; one three-year old orange bud on a five-year old orange root, 10 feet high, 6½ inches girth; altogether, in this display, were seventeen varieties of oranges, and four of lemons, all the display of Fisher, Richardson & Co., of Los Angeles.

The thumb pruning diligently practiced by these nurserymen explains the straightness and smoothness of the stems of their trees. They had no deciduous fruit trees on exhibition, though one sees in their nurseries the strange mixture of all manner of northern and citrus fruit trees.

In another display of citrus trees was a specimen of Garey's Mediterranean Sweet, an eighteen-months bud on a five-year old orange root, on which was nine oranges; a Lisbon lemon, a six-months' old bud on a five year old orange root, 8 feet 4 inches high, and 4 inches in girth; a seedling orange, five years old in July, 10½ inches in girth; Mediterranean Sweet, a twenty-seven-months' old bud on a five-year old orange root, 6 inches in girth; all exhibited by the Co-operative Nursery and Fruit Company of Los Angeles, Thomas A. Garey, Manager. It was Mr. Garey, who exhibited the Bequet orange tree

at the Exposition of 1878—a constantly blooming tree of which I (a year ago) gave an account in the *Pacific Rural Press*—suggesting the value of the Boquet as a producer of the raw material for the manufacture of orange-blossom perfumery. An item has been recently going the rounds of the newspapers to the effect that a French company, with a capital of half a million dollars, have chosen Santa Barbara county for plantations of the ever-blooming Boquet orange tree, and for a manufacture of orange-blossom perfumery.

Close by the displays of citrus trees was the following display of northern or deciduous fruit trees: An apple tree, a two-year old bud on a three-year old root, 12 feet high; a Black Tartarian cherry tree, a dormant bud on two-year old stock in September, 1878, 10 feet high in October, 1879; a Beurre Hardy pear, a two-year old graft on three-year old root, 13½ feet high; a peach tree, a dormant bud on two-year old stock in September, 1878, 11 feet 6 inches high in October, 1879; a two and one half year old seedling peach, 17 feet high; an English Walnut seedling, two years old, 10 feet high; a Nowpock Apricot tree, a one-year old bud on a two-year old root, 10 feet high; all exhibited by nurseryman L. L. Bequette, of Old Los Nietos. The following by the same exhibitors: The nut of an English Walnut tree, 5 inches in girth; ears of white Indian corn, 14½ inches long; a well-eared cornstalk 16 feet high; also canary seed, navy beans, pecan, mulberry, black walnut and persimmon trees.

Mr. Bequette says that Jas. Shug sold the English walnuts from seven acres of eleven-year old trees for $900; that older trees yield nuts enough to bring as much as $200 per acre per annum; that O. P. Passons sold the nuts from six acres of trees eleven years old from the seed, and nine from the transplanting, for $900; that Henry D. Bequette gathered and weighed from one eleven-year old tree three 60-pound sacks of walnuts, or 180 pounds to the tree, 30 trees to the acre, or 5400 pounds to the acre; that the present is the first year of even a partial failure of the walnut crop in Old Los Nietos, and yet some of their least yielding orchards will produce nuts enough to sell for $90 per acre. I asked Mr. Bequette why, in some parts of the county, English walnut trees are being cut up for firewood, having proved unprofitable nut-bearers, while the trees in Old Los Nietos were very profitable? Mr. Bequette replied that the soil of Old Los Nietos was a deep, rich, damp alluvion, while it was otherwise where the trees fail to pay; that the people of Old Los Nietos about equally divide their conspicuous zeal for planting between English walnuts and grape vines; predicts enduring success for those who plant English walnuts on deep, damp alluvion, and failure as the rule elsewhere.

A single display consisted of 71 varieties of apples. This display included the most valuable fall and winter varieties of apples of the Northern States and several seedlings developed in California. The display amounted to several bushels, classified by plates and showily spread around a pyramid built of numerous representatives of every kind on exhibition. To enter into the details of this magnificent display is simply out of the question. Let the best specimens of the best varieties of apples in the best apple growing region of the United States be got together for those who would have a partial conception of the extent and other merits of this display; in the same lot were pears, peaches, quinces, and pomegranates, and the entire display was made by Milton Thomas, and grown in the vicinity of Los Angeles city. Louisiana, or tropical sugar cane, was exhibited by Doctor Fulton, of the flowing sulphur wells near Norwalk, and by T. R. Passons near Downey; Mexican sugar cane by Montgomery Tyler of the Ranchito. Mr. Tyler thinks of raising tropical sugar cane for hogs; better say for a sugarie. A collection of ornamental foliage, blooming and fruiting plants, made up a single display in which a botanist or an artist might have found subjects enough for a prolonged study. In this display were found varieties of Diospyros Kaki, grafted on the Diospyros Lotus, or Italian persimmon, all fruiting profusely; also a fine specimen of the Musa Ensete, the largest of the bananas known. It attains, in Africa, a height of 40 feet, 6 feet diameter, with leaves 18 feet long and from 8 to 9 feet wide. The marrow, and not the fruit, is eaten. It is propagated by the seed and not by the sucker. But I desist on the mere entrance upon the description of this interesting display, all from the Los Angeles home of J. Grelck.

Odessa wheat, small berry plump and hard, was exhibited by Miles Brothers, of Anaheim. These gentlemen introduced Odessa wheat into Southern California. It does not rust here. It is proving an important factor in opening wider the new era in wheat growing, and in the building of fine merchant flour mills now fairly upon this region. A sample of superior wheat grown at Orange, was exhibited by M. Harwood, of Orange. A sample of 508 pounds of Defiance wheat from the sowing of 15 pounds of seed on ¼ of an acre of ground in the La Dow precinct near Agricultural Park, was exhibited by A. Southworth. Old Port wine, White wine, and Angelica wine were exhibited by Wm. Konig, of Anaheim. Grape brandy, White wine, and Port wine, the latter of the vintage of 1875 and also of 1878, by Fred Harting of the same place. Judges pronounced all these samples of wine and brandy equal to the imported. Anaheim is now one of the chief wine growing centers of California.

THE VALLEYS OF BEAUTY AND UTILITY.

Proceeding another stage farther inland, one passes over a ridge more ornamental than useful, into the valley of San Fernando, the region of ten thousand-acre wheat fields, or into that of Pasadena and San Gabriel. In these valleys, bounded, southerly by the smooth, velvety ridge, and northerly by the rugged, steep and cloud high Sierra Madre. The poet's exquisite day dream vanishes before the invasion of energetic, matter of fact settlers, only to return a better poet's day dream thereafter, when the matter of fact settler himself, without directly working for it, intensifies the natural romance and poetical beauty of the scenery a thousand fold, by the mere utilitarian development of his premises. Nowhere in the United States do the utilitarian operations of the soil-tiller so unadvisedly lead to the beautifying of the landscape, as in Southern California; and nowhere in Southern California are to be found, as in the valley of San Gabriel, such a combination of the sublime and the beautiful in nature with the beautiful and useful in husbandry. It would be very pleasant to get off pen picture after pen picture of these splendid regions; but in deference to utility, drop landscaping and subside into a short series of practical illustrations of husbandry there.

It would be difficult to find better illustrations than were brought together at the Exposition, which are enhanced in value in the estimation of many readers, because they were publicly exhibited in the presence of, and critically examined by, thousands of visitors from the vicinity and from abroad, who can testify with me, of the merits of the illustrations. For instance, Mr. W. S. Plummer, of Oregon, patentee of the widely and favorably known "Plummer Fruit Dryer," who has been visiting state and county expositions for five years, in the interest of his invention, and who attended the Los Angeles Exposition, stated publicly that he had never seen a better display of apples than what he saw at Los Angeles, and that he had never seen a display of grapes nearly equal to the Los Angeles display.

PASADENA.

This noted place made several displays, one of which contained twelve varieties of apples, among which were the Rambo, the Russet, the Beauty of Kent, Pound Pippin and the yellow Belle Fleur; the last named apple being 12½ inches in girth; all by Col. J. Banbury. It is neck and neck in Pasadena as between deciduous fruits, citrus fruits and European grapes; and in all these Pasadena is abreast of other highly favored localities. Excellent sun dried peaches and figs were exhibited by Mrs. A. A. Mundell. English walnuts and unbleached almonds, very good, were exhibited by J. N. Mundell. A lemon seedling, 10 inches in girth; bell shaped oranges of the crop of 1879-1880, ripe and excellent; a 66 pound pumpkin grown without irrigation; Win er Nellis and other pears; wheat, small berry, plump, hard and thoroughly cleaned; wheat in head on straw, clean and bright throughout; all exhibited by David Raab. Honey such as can be produced in Southern California only, was exhibited by A. J. Davidson. Peaches, surprisingly good for October, by Dr. O. H. Congar.

SAN GABRIEL.

Brandy made of the tuna, or cactus fruit; Port wine of the vintages of 1875, 1877,

1878, 1879, and Grape syrup, all from the premises of General George Stoneman. Grape brandy, Port wine, Angelica wine, natural California Sherry, sweet Muscatel, Sherry, and White wine from Mound Vineyard; Sauterne, Grape brandy, Angelica wine, California Sherry, sweet Muscatel, Sherry, and Port wine from Lake Vineyard, J. de Barth Shorb exhibitor of both vineyards; also, Lake Vineyard Olives and Olive oil, J. de Barth Shorb, exhibitor. Connoisseurs of each San Gabriel exhibit are emphatic in the opinion that the fine qualities of the articles warn Europeans, that, if they would much longer supply the American market with Wine, Brandy, Olives, and Olive oil, they must have their vineyards and orchards in California.

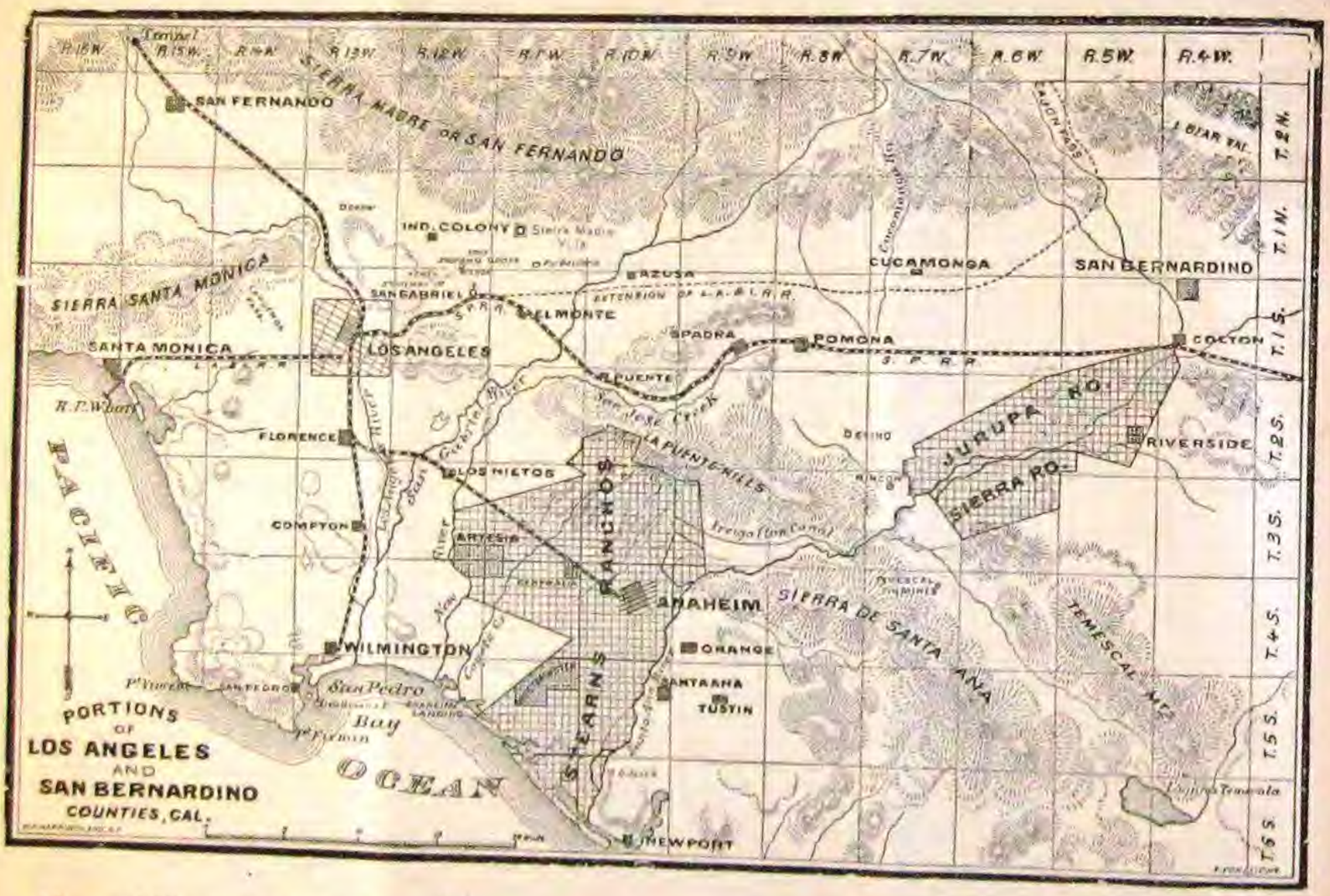
SANTA ANITA.

Oranges, seven to the cluster, large and handsome; corn, 15 feet high, well eared as to the number and the size of the ears; W. S. Chapman, exhibitor. The magnificent cluster of 15 large oranges with all the peduncles converging on two inches length of branch, and exhibited by Mr. Chapman at the Riverside Citrus fair, coupled with the later exhibit, is suggestive of conditions on Santa Anita highly favorable to the citrus tree. Early Rose potatoes from the Duarte were simply faultless; N. Beardsley, exhibitor.

POMONA COLONY.

The Pomona display was better than one would expect from the youngest of the colonies, among which were the 30 varieties of apples including the Winesap, Limbertwig, Rhode Island Greening, Boston Russet; a Newtown Pippin 13 inches in girth; superb Quinces, and three varieties of Pears, the Winter Nellis among them; Rev. C. F. Loop, of Pomona, exhibitor.

I have given less than a moiety of the exhibits made by Los Angeles at the Exposition. The other exhibits will be described in my articles published in other journals.



THE VALLEY OF THE SANTA ANA AS A DAIRY COUNTRY.

IN the northern and middle parts of the State of California the dairy season is almost entirely confined to six or seven months of the year, from the commencement of the rains until the grass dries up, the dairymen managing to have their cows come in fresh in December, January and February, and have them go dry in July and August. When the green feed fails, in consequence, the season when feed is abundant, production being very great, and the market for fresh butter being overstocked, the price falls so low as scarcely to pay, and as the great majority of the dairies are entirely dependent upon the natural grasses, they must manage to do their work during the grass season or not at all. The butter must either be sold fresh or packed down in brine and sold in the fall and winter. In either case it commands a low price.

The exceptions to this rule are where the land can be irrigated and alfalfa and other green crops raised. In these cases the business is made continuous throughout the year. Some of these dairies, by making cheese in the spring, when butter is low, and butter in the fall and early winter, when butter is high, make a much more profitable showing than the others when the balance is struck at the end of the year.

In the valley of the Santa Ana River, in Los Angeles county, is a vast body of land exactly suited to this continuous dairying. The soil is moist and rich, the climate equable, neither cold nor hot, and there are in one body 200,000 acres of land upon which flowing wells can be obtained by boring, at moderate cost. In Northern California it requires ten acres of natural pasture to sustain one cow; here the natural grass on one acre will furnish ample feed for a cow without cultivation or irrigation, but with alfalfa, beets,

pumpkins, corn fodder, sorghum, etc. With irrigation, four cows per acre can be easily maintained, with abundant green feed during the entire year. These lands lie along the sea coast, are convenient to both railroad and steamer, and competition makes transportation prompt, at reasonable rates. Those who wish to dairy without cultivation can find many thousand acres of wet lands on the sea coast that furnish abundant green feed eight to ten months of the year, and adjoining these are table lands that are covered with rich grasses during the cold season, when the grass fails on the wet land. Three fourths of these lands lie vacant, awaiting the arrival of the farmer or the dairyman, and can be purchased at rates varying from $25 to $50 per acre; terms, one fifth cash, balance on easy terms. What many dairymen are yearly paying for rent would in a few years buy our best lands, and he would become an owner instead of a renter. With natural moisture and abundant water for irrigation, he would be entirely independent of the seasons and indifferent as to the rainfall. When cattle are exposed to cold winds and are obliged to travel in search of feed, a large proportion of their food is required to keep up the animal heat and supply the waste of the muscles. Here feed is so abundant that cows become very indolent, and little being required to supply waste, large returns are made in butter and cheese. WM. R. OLDEN.

FACTS AND FANCIES.

The latest thing in boots—stockings.

A young lady remarked last evening that she wished gold would come to pa, for then she could have some new dresses.

Professor Proctor having picked out 324,000 stars, the Turner's Falls *Reporter* believes that he will soon have as many as the average traveling minstrel troupe.

The Detroit *Free Press*, with a worldly wisdom rare in one of its years, suggests that you should call a 200-pound girl "Little Rosebud," if you want to please her.

A new reflector has recently been presented to the Second Congregational Church of Rockville, Conn., and the first evening after its arrival the choir unwittingly started off with the anthem:

> Arise and shine; thy light has come.

Were Dr. Watts still in the flesh he would doubtless, in view of the walking match, revise a familiar verse of one of his hymns, so that it should read:

> Were I so tall the stars to greet,
> Or grasp the ocean with a span,
> I must be measured by my feet,
> The leg's the standard of a man.

When filling a cavity dentists sometimes place a date in the patient's mouth. When a tooth is being extracted, the dentist is relieved of that duty. The patient supplies all that is required.

☞ SUBSCRIBE for the SEMI-TROPIC CALIFORNIA, $1.50 per year, in advance.

RANCHO CERITOS.

CONTAINING 25,000 acres of land, lies in between the Santa Ana and Wilmington branches of the Southern Pacific Railroad, and between the old and new San Gabriel rivers, and is a continuation of the Los Nietos valley, the far famed corn and pumpkin district that extends to the ocean by the port of Wilmington. The soil is of a diversified character, and upon this ranch can successfully be cultivated every product known to a semi-tropical or temperate climate. It is right in the Artesian belt, with a large number of flowing wells on it which have been obtained at a depth of from 50 to 150 feet.

Wheat, barley, rye, oats, corn, sugar beets, alfalfa, and the whole vegetable family, grow to perfection. Mr. Jotham Bixly, the worthy owner of this immense ranch, and whose generous impulses are in keeping with his wealth, segregated and put upon the market, about two years ago, several thousand acres of this ranch near the port of Wilmington, at prices and terms that enabled farmers of small means to purchase and locate a colony, who are harvesting now from 75 to 115 bushels of corn per acre that has not had a drop of water on it since planted, and with the moderate price and easy terms Mr. Bixly has given these farmers they will make enough corn on the land to pay for it this year. He has much more of these fine lands for sale, and with the rich productive force of this soil, its water, and transportation facilities, its healthful and almost unvaried salubrious climate, together with the reasonable price and favorable terms of purchase, there is no land on this coast that offers such favorable inducement to those that may seek a home in this famed land.

TRY IT.

IT DOES PAY always to read about what others do and say and think in the same line of work or business. If one does not find direct information specially applicable to his own work, yet the thoughts and methods of others incite new thoughts and plans in the reader's own mind that lead to profitable results. The reading, thinking man makes his head help his hands. Brains tell everywhere, and in nothing more than in farming, gardening and housekeeping. And the fewer brains one has or thinks he has the more anxious should he be to get all the facts and suggestions he can from other people's thinking and experience. Subscribe for the SEMI-TROPIC, and you will get the opinions and experience of all the best farmers. Terms, $1.50 per year, strictly in advance.

A SPECIMEN number of the SEMI-TROPIC CALIFORNIA will be sent to any address supplied by our readers. Of course they will only make this request in cases where such specimens will be likely to do good.

SUBSCRIBE for a copy or so and send to your friends in the East, who are anxious to know about California.

A REQUEST.—We solicit every person who receives this number of the SEMI-TROPIC—first, suggestions about farming in any of its details that will be of interest to our people of Southern California; second, their experiences and results, in successes or failures, in any branch of farming; third, the names and address of people in the East who desire to know more about California, so we can send them copies of our paper.

FRIENDLY ADVICE.

A prominent business man in Baltimore, who is well posted as to foreign emigration, writes thus: "Do you know I think the emigration from Europe to America, the coming year, will be greater than ever before, and California should get a larger share than any other of the United States.

Canada is sending agents over there to entice them to her borders. From the knowledge I have of the Pacific Coast, I am sure you could have a larger share of the emigration, if you would properly represent your county through your papers, and send the papers over there, and send agents to work for your road. * * *

In the future I am going to do all I can for California, her development and improvement, as there is no land so well suited for happy and prosperous homes, amid a mild and genial clime * * *

E. S. B.

EGYPTIAN CORN.

Says the *Visalia Delta*: We heard a farmer from near Grangeville make the remark a few days since, in a Visalia store, that he had raised three tons of Egyptian corn to the acre on his place, and as a feed for hogs he considered it far superior to barley. He planted the red variety, as blackbirds have such a fondness for the white kind that they get away with it before it has time to fully ripen.

IMPORTANT TO FRUIT-GROWERS.

The Pioneer Fruit and Vegetable Drier is unsurpassed in price, durable and best. It received the highest award and medal at the Paris Exposition in 1878, Centennial Medal, Philadelphia, 1876, three gold medals from the State Agricultural Society of Oregon (one each since patented), silver medal for dried potatoes, and silver medal awarded by the Southern California Horticultural Society, 1879; also medals and diplomas of the highest award at numerous other places exhibited. It is more profitable to dry with the Pioneer Drier than to sell fruit green at a lower moderate figure. More fruit can be dried by the Pioneer than by any other drier in proportion to its cost. You can dry with the Pioneer cheaper than by the sun. Present price of sun-dried apples in New York City, 7c. No.; present price of Pioneer-dried or evaporated, 10c. 10c. Though only three years since introduced in Oregon, there are over 1,000 in use on the Pacific slope. With the Pioneer fruit growers can see their way clear to plant largely, for with it there will be no danger of an over stocked market. Remember, fruit and vegetables dried by the Pioneer process, exhibited by the Portland Board of Trade, took the highest award over all others at the World's Fair, Paris, in 1878, where they were in direct competition with the best appliances for drying and the most skilled labor of the world. For price, descriptive catalogue of family and factory, driers, etc., address Ogilvie & Ramos, box 128, Los Angeles, Cal.

HOW POOR MEN MAY PROSPER IN CALIFORNIA.

(From Morning Journal.)

THE intrinsic value of land is found by comparing its productive capacity and its lasting qualities with other lands in other countries. In many of the States, and in fact in most of the world, the lands soon wear out by continual cultivation, and it becomes necessary to manure them or let them rest. But with our lands in Los Angeles county, neither of these alternatives is necessary, as any person who will take the trouble to investigate may prove to their entire satisfaction, as there are lands here that have been cultivated for nearly a hundred years, every year, that have never been manured, and are as productive now as any of the land that has never been cultivated. A further proof is the fact, well known by farmers, that there is nothing that exhausts the strength of the soil so much as a walnut grove, as nothing will grow to any extent where and while they are growing; but as soon as they become dormant, during the winter season, a barley crop will grow and mature, and produce as good a crop as will the land where there are no trees, and which has never been cultivated. These are facts that cannot be disproved by demonstration. If this be so, then our lands are of greater intrinsic value than other lands in other countries, for the reason that they will never wear out. In addition to their durability, they will produce almost every article that can be produced in any country in the world, and will produce of an article an equal quantity to any other country, and of many articles twice or three times as much as most of the lands in other places. But this is not all that can be said of these lands, for we may raise on the moist or corn lands two crops each year—a crop of barley and a crop of corn; and on the irrigable lands three crops—grain, potatoes, cabbage, or any other crop. It is not an unusual thing to raise on one acre of moist corn land 40 bushels of barley, 60 bushels of corn, and 5 tons of pumpkins in one year.

I don't believe there is a country on this globe of ours where a poor man can do as well as he can in Los Angeles county and surrounding country, if he will work as he has to do in other countries to make a living. Here he may purchase 20 acres on credit at $50 per acre, and pay for it in one year from the products that it will raise over the same amount of land in most of the other States, if he will feed this produce to a good quality of hogs and turn them into bacon, for he can raise at least 40 bushels of corn, 40 bushels of barley, and 5 tons of pumpkins more on each acre in a year than he could on the land that I cultivated when I was a boy. This amount of grain and pumpkins will feed 200 pigs, commencing when they are one month old, for a year, at which time they will weigh at least 150 pounds a piece, and will make 100 pounds of bacon to each pig. This bacon will bring in our market at least 8 cents per pound at wholesale, which would be $1600. The pumpkins will feed these pigs the first 250 days, allowing an average of 4 pounds a day to each pig; the barley will feed them the next 66 days, allowing 3 pounds to each pig; and the corn will feed them 50 days, four pounds to each pig; total 366 days. Every one who knows anything about feeding hogs knows that this amount of feed will make each pig turn off 100 pounds of bacon, if fed to them judiciously, and everybody knows that bacon is a commercial article for the world, as much so as gold, and this poor man will have his 30 bushels of corn to the acre left to live on for the next year, after paying for his land only have to plow his corn once, while in the other States he must plow it three or four times. J. W. Porrs.

OUR FUTURE RICH MEN.

THE rich men of the future in Los Angeles will be composed of those who have recently come here with capital and invested it in real estate in this city and vicinity and those already possessed of property and capable of holding it through the era of business and financial depression. The hard times have so depreciated the value of real estate that very little capital is required to represent a fortune when business revives and values reach a fair standard. Those who take advantage of the present condition of the real estate market will, undoubtedly, quadruple or quintuple their capital. Property has reached its lowest figure, and whatever movement may occur will be in an upward direction. The industries of the county will soon revive, and assume a healthy condition. Our natural resources are such that as soon as prices for our products re-assert themselves an era of general prosperity will commence. Two of our principal staples are already advancing in price, and there is every prospect that corn and barley will be favorably affected by the activity now exhibiting itself in San Francisco. With fair returns for wool, grapes, wine, corn and barley, and with the certainty that our lands will yield good crops of wheat, no county in the State will be in a more prosperous condition than ours. As some of these articles are now bringing prices which leaves a fair profit to the producer, and the rest are likely to increase in value, the time cannot be far distant when business depression will give away to activity. As soon as we touch that time, real estate will be favorably affected, and the men who are now struggling to hold on to their property will suddenly find themselves in easy circumstances. Those who have purchased at bed-rock prices will realize a great accession to their wealth, and take the place of those who have been unable to tide over the hard times. The experience of Los Angeles is not exceptional. Property values have depreciated in all the cities of this coast, as well as throughout the United States, in as great a ratio as they have here. Real estate in San Francisco has been without sale up to a very recent period, and prices had deteriorated 200 and 300 per cent. in certain portions of the city. In New York the mortgages placed on property four years ago absorbed the property, and other cities have undergone the same severe experience. Now property is looking up in San Francisco and New York, and with the productive advantages of our county, and the reaction of the times everywhere, Los Angeles real estate cannot but soon take an upward start in price.—*Los Angeles Express.*

PASADENA.

AS its Indian name indicates, this beautiful suburbs of Los Angeles lies at the head of the San Gabriel valley. It includes a scope of country about seven miles by three, about one third of which is made beautiful by the homes of thrifty Eastern people. The nucleus is the Indiana colony, which was formed and located by men who sought homes in the Western Italy. They are there to-day living in their cottages surrounded by their orchards and vineyards. They have drawn around them enterprising and intelligent settlers from every State in the Union.

Within five years from its inception this colony has become one of the most popular drives for tourists visiting Los Angeles, and one of the most thriving communities in the State. The valley has long been known as the home of semi-tropical and other fruits. The lands of Pasadena slope out southward from the base of the Sierra Nevada, catching the warmth of the sun. They are protected by that grand barrier of mountains, a mile high, from cold north winds, and desert sand storms. A line of hills shuts off the chill of the sea breeze. These things account for the growing popularity of this beautiful settlement.

A COLD SNAP; not in Semi-tropical California, but in Florida, where so many northern people go to spend the winter. The *Quincy Florida Herald*, says: "For nearly three days they were permitted to indulge in snow-balling, sliding and coasting, with the thermometer at 18°. They also had snow and ice in 1835, 1842, 1859. Southern California has no snow record, no below 25 record. Why do not ye of the East do as many of your friends do, go to California to spend your winter?

PLANT some red Egyptian corn (the red yields better than the white); any soil will grow it. It will grow without irrigation. It produces an immense crop; is as good, or better, for meal for culinary purposes than corn meal, is equal to any other grain as feed for stock, and the leaves are as good as any new grass or hay for stock. Our climate is pre-eminently adapted for it, and we hope to have a great many good reports from it.

An experienced authority says that an acre of healthy orange trees, twelve years old, may be relied on for an income of $1,000 per year.

THE FOOTHILLS FOR HOMES.

IT is just becoming known that the future desirable home places are in the foothills. A location within the thermal belt of a few acres would make a lovely home, where all the fruits and flowers of the temperate and semi-tropic regions could be produced without difficulty. There is the material here for building up homes of beauty, homes of quiet, restful, happy abiding places, where comfort and peace shall be found.

The frostless belt of this State is a little above the valley lowlands and river bottoms and clings closely to the foothills, but does not extend to the summits of the lower spurs of the mountains. Some of the very best land in the State is on narrow benches and rolling slopes, somewhat broken by ravines and ledges of rock. It can be purchased at comparatively low figures, and has possibilities of fruit-growing, wine-making, olives for oil, grapes for raisins, and endless small specialties. A quarter section of such land will probably contain from thirty to fifty acres of number one land, rich, deep and moist, fit for anything. The remainder may be used for pasture and for vines and trees of many descriptions.

There has been a good deal of complaint about the Government and railroad lands of this State. Some persons and papers have asserted that there was little good land left for pre-emption, and that men would starve long before they succeeded in making a home in the hill-belts of California. But, while these things were being asserted with great energy, there were experiments under way in almost every county of the State. Many men of small means have chosen homes on these rough hill lands and in sheltered mountain nooks. Almost without exception they have done well, have been independent, have enjoyed the best of health, and would not exchange their picturesque mountain homes for an equal number of acres in the valley.

THE AMERICAN DAMASCUS.

By Bishop Hayes.

HAVING never seen the original, it comes very easy to compare it with its American copies. When at Bayrool, and only a day's ride from the famous city, we turned away to the north and left it, probably forever. Dr. Vandyke said: "You are eight thousand miles from America, and only a few hours from Damascus; you had better visit the latter ere you go." But my companion, a Presbyterian clergyman, with whom I had traveled through Egypt and Palestine, was half sick and wished to catch the next steamer, I surrendered, and left Damascus for the next time. That was seventeen years ago. "The next time" has not come yet.

But a substitute has. No one need go eight thousand miles to see that city. He can find it in going half that distance. Take cars from any city on our Atlantic border, buying your ticket for Los Angeles, and you are delivered as surely, safely, and swiftly as an express package at the depot of the American Damascus. It is less than four thousand miles from New York, and a palace car bears you across the land-ocean without sickness or much weariness.

This Damascus, like the Oriental one, is reached by crossing a desert. * * *

The desert of Mojave gives way at last to the broad ranch of San Fernando, some ten miles square—only forty to sixty thousand acres—the gift of the governor to a local preacher, well known elsewhere in the Church, sunken here in a splendid wheat plantation. A preacher is supported here, and so all is not lost.

The valley of our Damascus soon opens, and we are landed in a garden of delights.

See this pretty yard—a common front yard, no larger than an ordinary front yard in any suburban city of the East. Here is an exquisite hedge, three years old, six feet high, as round and full as if raised in a conservatory. Here are roses blooming all the year. Here are geraniums in abundance, and tall as rose-bushes. The heliotrope twines itself up the pillars of the portico full of blossom and fragrance. Here are rhododendrons and oleanders growing like trees, while fuchsias are as numerous and varied and lovely as in their own aboriginal homes in the valleys of Cuernavaca. All this in a front yard twenty-five feet square; all grown by a lawyer's wife, who, had she stayed at home, would have last winter been shut in by snow for nearly half the winter. Here not a frost-late mars the life and loveliness the whole year through. A few feet lower down the moisture occasionally turns to frost, but the dry hill-top is perfectly tropical. At our permanent stopping-place, the genial home of Brother Bradley, the lay delegate to the General Conference, there was a like profusion. A geranium grows so tall and stout as to almost prevent the opening and shutting of our blinds. We pushed it away with difficulty. This was not on the second story. These stories are only one story high.

Come a little nearer the town, Judge Widney's house stands flush with the street, an unwatered, and therefore gravelly-looking, walk admits to the dwelling. Don't stay inside, cool though it be. Pass through. A back-yard sloping up a few score feet includes, perhaps, a third of an acre. On that bit of soil flourishes in the open air untouched of frost every tropical fruit. Four stately eucalypti, six years old, sixty to eighty feet high, are on the level plat behind the house, a half hundred feet square of shade and green and refreshment. From that pleasant bower climb the few rods, three or four, that bring you to the end of his grounds. On that slope you can pluck and eat apples, cherries, pears, peaches, bananas, figs, grapes of many kinds, oranges, lemons, pomegranates, while the Japanese persimmon, the guave, out of which comes the best jelly, and other fruits, are getting ready for your use. The cherries fail to flourish. They are too northern, and pine for the pine-tree. The Judge proposes to get the mango planted in his garden, the fruit of which, the Oriental says, was the apple that ruined Eve and Adam.

It was a novel sensation to sit under your own fig, beside your own eaton, and drink lemonade made from fruit grown on the place, eat bananas and oranges and figs and pomegranates and potatoes all from the same patch. The Judge's brother, the doctor, has a banana orchard on a twenty-foot square adjoining, which gives them this delectable fruit fresh all the year. Where is Damascus by the side of these fruit and flower beds of Los Angeles? The view from that upper ledge of the Judge's terrace is most enchanting. For a score of miles waves the green sea of ceaseless life. There is Pasadena, Alhambra, and San Gabriel, and many other green spots stretching down to San Monica and the sea.

There we take a carriage and get a nearer view of the paradise. Five miles across the dusty moraine, and over a partially yet unclaimed desert—every inch of which responds instantly to the touch of water—through the scent of water it will bud and bring forth boughs like a plant—and we enter Pasadena, which is a string of Yankee cottages embowered in every tropical luxury of flower and fruit. Here dwells the celebrated cavalry leader, General Stoneman. Farther adown we ride amid hedges, flowers, gardens of cucumbers, squashes, water melons of fabulous size and quality. I saw one squash, a small one, weighing one hundred and thirty pounds. Cinderella's coach could easily be made out of many of them. What delicious air—so soft and healing! May it heal the sore lungs of our young brother! What a banquet of flowers and fruit—such bouquets, such grapes, such everything! We got tired of praising and eating, especially the latter; and great bunches—almost big enough for two men to carry on their shoulders, Chinese fashion, not here Eshcol fashion of old—accompanied us part way on our home trip. They disappeared before the sharp-set appetites which they so fascinated and gratified.—*New York Advocate.*

WE would earnestly recommend our farmers to grow a variety, and not bank on one single article. Do not expect to grow rich on your immense wheat-fields or your great corn-fields, or your acres of grapes, or forests of oranges. But, on the contrary, have a variety of things, so that in case of a failure in any one you will have the others to "fall back upon."

Don't forget in your getting to get a good cow or two, chickens, ducks, sheep, hogs, and young cattle. Have some marketing to sell every week.

ANDREW BRAWNER estimates his orange crop at 1,500,000, which, at $15 per thousand on the tree (present prices), would amount to $22,500, with no expense for picking, hoeing or hauling. His grape crop has realized him $9,000, making $31,000, from a 120-acre farm.

LAKE VINEYARD.

THE lands of the Lake Vineyard Land and Water Association are situated in the valley of the San Gabriel, about seven miles east and north of the City of Los Angeles, the metropolis of Southern California. This valley is formed by the Sierra Madre range of mountains on the north and a low range of hills on the south, both running parallel with the sea coast, which is about twenty-five miles distant. Owing to this arrangement of the topography of the country, the very perfectness of a perfect climate is secured. The sea breeze which blows every day from ten o'clock till five is tempered by its passage over the intervening land, and reaches this valley cool, but mild and devoid of that harshness which is so common near the coast. The hills which protect the valley from the direct action of the ocean breezes are not of sufficient altitude to interfere with their constant current, and act simply as a barrier to fogs and dampness, preventing cold days in winter or hot ones in summer. The thermometer varies but little the year round, averaging about eighty-five during the summer and sixty-five in winter.

The tribute paid to the climate of this locality by Dr. J. P. Widney, a physician of extensive experience, shows how it is viewed by the medical faculty who have the whole of Southern California to choose from. He says: "The valley of the Mission San Gabriel, some higher than the main Los Angeles Valley, and separated from the City of Los Angeles by a low range of hills, is the mildest and healthiest spot in all Southern California. The scenery is grand; the vast ranges of mountains that rise thousands of feet above the valley. In the deep gorges of these mountains the sportsman can find game in abundance, and such trout as do not gladden his eyes often in the Eastern States. The view of the valley impresses one that there all is contentment, peace, progress and plenty. The broad stretches of plain covered with orange groves, vineyards and farms of all descriptions, are spread out in endless succession. In California the value of land is measured, as a rule, by the supply of water that can be utilized upon it. Irrigation is a necessity, and if the means of irrigation are ample, the value of the land is greatly increased, as the farmer is practically independent of the season. Let it be ever so dry, the happy possessor of plenty of water is content, for his crops are assured beyond a doubt. It is in respect to the water right that this association is especially pre-eminent, and to the full understanding of their position on this vital point the careful attention of intending immigrants and purchasers is called. The plan adopted has been to sell the water right with the land—that is to say, the water right has been divided into as many shares as there are five-acre lots, and five acres carries one water share. And the Association do not propose to stop at any expenditure until every avenue throughout the tract is traversed by a main pipe which will supply the lots on either side.

The advantages offered by this plan are immense and should not be passed lightly over. For the ordinary price of land one receives in addition a proportionate share in a perpetual and inexhaustible water right, which is already developed and flowing in sight, and is made part owner of a well-designed and constructed system of water distribution.

No faith is required and the purchaser is not asked to take the word of anybody. It is all practically demonstrated, and can be fully investigated by a visit to and examination of the lands and the accompanying water supplies.

The settlers and consumers of water are not required, nor can they be required to pay any water-rates or taxes or to *buy* water under any form. They own the water and have the *right* to *use* it, subject, of course, to certain rules and restrictions that are adopted by themselves. The only expense which they are called upon to pay is the salary of the Water Overseer, whose duty it is to turn the water on and off according to the rules, and have the care of the reservoirs and pipes, and any necessary repairs that may be required.

In the U. S. "Agricultural Reports" for 1871, under the caption "A Few Facts from Florida," the prices of lands adapted to orange culture are given at from $500 to $100 per acre. This, too, in the face of the fact that they are exposed to frosts occurring at short intervals of time of so violent a character as not only to impair or destroy the crops but absolutely kill the trees.

There is an abundance of water furnished by our magnificent water-sheds, if properly reservoired and distributed in pipes, to supply all our dry lands with this life-giving wealth-producing element.

There is a future for Los Angeles county and the fortunate possessors of the soil, and it only awaits the energy of its people to make it as rich and as beautiful as any part of the world. The predictions of Mr. Shorb in the above article are being rapidly fulfilled. The Mission Valley is fast settling up with the better class of immigrants, almost invariably Eastern people of culture and refinement; and their presence is especially denoted by the numerous churches of different denominations, and the commodious school-houses that are established already. The facilities for market are unequaled on the coast.

As the lands of the Lake Vineyard Land and Water Association are especially adapted to the culture of the semi-tropical fruits, the following account of the actual profits of the business, and statements as to its future, by a gentleman of long and extensive experience in this branch of farming, will not be out of place:

"By careful estimates made in 1874 of the crops on an orchard of 436 trees, 309 of which were twelve years old from the the seed (the balance being too young to bear), I obtained as a net result, over and above cost of transportation to San Francisco, commissions on sales, etc., $20.50 per tree, or an average of $1,435 per acre. I do not claim this as an average crop or result, but I do think that with proper care and attention the average can be made equal to $1,000 per acre of trees twelve years old. I have trees on my property which yield over three thousand oranges per tree, which if sold at $20 per thousand would give per acre a result of $4,140. The average price throughout the county for the past five years, to those who have shipped their fruit, has been $20 and $25 per thousand. I see no reason to doubt that the market will remain the same.

Those who desire fuller information upon any special points, prices and terms, will promptly receive the desired information if they will address the undersigned at Los Angeles City, California.

F. W. Woon,
Secretary Lake Vineyard Land and Water Association.

T. E. ROWAN,
REAL ESTATE AGENT
—AND—
COMMISSION AGENT.
Hous s, farms, ranchos and orchards to rent.
77 Downey Block,
Los Angeles, Cal

L. LICHTENBERGER,
Manufacturer of all kinds of
WAGONS, CARRIAGES, ETC.,
Main Street,
Los Angeles, Cal.
The best kind of work guaranteed.

DILLON & KENEALY,
DEALERS IN
Staple and Fancy Dry Goods.
All the latest novelties and new styles received weekly.
We invite you to call and inspect our goods and prices.
MAIN STREET,
Los Angeles, Cal.

THOROUGHBRED POULTRY.

Largest stock of Imported Fowl on the Pacific Coast. Bone meal and poultry supplies always on hand. General Pacific Coast Agent for the American Poultry Food. It will make your hens lay, and prevent disease. For raising young chicks it is almost indispensable. My yard contains choice strains of the leading varieties, including Langshans, Plymouth Rocks, Pekin Ducks, etc. Eggs for hatching packed to go any distance. Prices always reasonable. Safe arrival of fowls and eggs guaranteed. Importer and Breeder of the Improved Short-Noses, Dish-Faced Berkshires. Also, Magic Poland-China Pigs.
Letters of inquiry, enclosing stamp, cheerfully answered. Address,
WILLIAM NILES,
Importer and Breeder.
P. O. Box 250. LOS ANGELES, CAL.

My Annual Catalogue of Vegetable and Flower Seed for 1880, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Full directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*; so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed directly from the grower, fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.

JAMES J. H. GREGORY, Marblehead, Mass.

WALTER S. MAXWELL,

COMMISSION MERCHANT,

AND DEALER IN

Wool, Grain and Live Stock,

36 Spring Street,

Los Angeles, Cal.

THE PLUMMER

Patent Fruit and Vegetable Drier.

Reasons why it is the Best.

1. Most durable.
2. Simple to operate.
3. Most economical in fuel.
4. Fruits and vegetables dried by it command at highest market price.
5. Flavor, color and condition of fruit unrivaled.
6. More fruit can be dried by the Plummer in proportion to its cost than by any other.

An evidence of the superiority of the Plummer is seen in the fact that it received the highest award and medal at the Paris Exposition, 1878, Centennial medal, Philadelphia, 1876; three gold medals at the State Agricultural Society, Oregon, (one each year since patented) and silver medal for dried potatoes. And silver medal awarded by the Southern California Horticultural Society, 1879. Also medals and diplomas of highest award at numerous other places exhibited.

Over 1000 of these Driers already in operation on the Pacific slope since patented in Oregon three years ago.

For price, descriptive catalogue of Family and Factory Drier, address,

OGILVIE & EAMS,

Box 128. Los Angeles, Cal.

S. P. R. R.

Commencing Thursday, Nov. 6, 1879,

AND UNTIL FURTHER NOTICE

TRAINS WILL LEAVE

LOS ANGELES

AS FOLLOWS:

9.30 A. M.—Daily—Via L. A. & I. R. R. Local Passenger Train to "Santa Monica." (Arrives 5.30 p. m.)

10.35 A. M.—Daily—Local Passenger Train to "Wilmington." (Arrives 3.10 p. m.)

11.10 A. M.—Daily—"San Francisco" Through freight and Time-class Accommodation Train. (Arrives 12.30 p. m.)

1.15 P. M.—Daily—"San Francisco" Express Train connecting at Lathrop with the Atlantic Express Train of the Central Pacific Railroad. (Arrives 1.25 p. m.)

2.25 P. M.—Daily—"Maricopa Express," connecting at Yuma with Colorado River steamers, and with daily trains of the Southern Pacific railroad of Arizona for Maricopa. (Daily stages for Phoenix and Prescott), and Fort Costa Grande (100 miles east from Yuma) and End of Track. Daily stages for Florence and Tucson. (Arrives 10 to 11 a. m.)

2.45 P. M.—Daily—Local Passenger Train to "Wilmington." (Arrives 7.20 p. m.)

4.00 P. M.—Daily—Local Passenger Train to "Santa Ana," connecting with stages for San Diego. (Arrives 8.00 a. m.)

4.10 P. M.—Daily—Via L. A. & I. R. R. Local Passenger Train to "Santa Monica." (Arrives 6.20 p. m.)

TICKET OFFICES.

Commercial St. R. R. Depot
Depot Office S. P. R. R

T. H. GOODMAN,
General Passenger and Ticket Agent.

A. N. TOWNE, General Supt.

E. E. HEWITT, Asst. Supt., Los Angeles.

Pacific Coast Steamship Co.,

Goodall, Perkins & Co. Agents, San Francisco.

SAN FRANCISCO

—AND—

LOS ANGELES.

Rates of Fare from Los Angeles.

	CABIN.	STEERAGE.
To San Francisco	$15	$10
To Port Harford	12	9
To Santa Barbara	8	6
To San Diego	8	6

Plans of Steamers' cabins at agent's office, where berths may be secured.

For Way Ports.

The steamer Senator leaves San Buenaventura and Santa Barbara for San Francisco, every Saturday, calling at way ports.

Freight Steamers leave San Francisco for San Diego and way ports about every ten days, carrying stock, combustibles, etc.

For passage or freight as above, or for tickets to and from Yosemite Valley and Big Trees,

EASTERN CITIES

—AND—

Principal European Ports.

Either direct or by way of San Francisco.

Apply to B. MOVELLAN,
Local Agent.

OFFICE—No. 40½ Main street, over Commercial Bank, Los Angeles, Cal.

COSMOPOLITAN HOTEL.

The only

Reliable First Class Hotel

In Los Angeles.

The Finest Hotel in Southern California.

HAMMEL & DENKER, Proprs.

THIS NEW AND ELEGANT HOTEL IS SITUATED in the centre of the city of Los Angeles, and contains nearly a hundred spacious and airy rooms, newly furnished in the most comfortable style. Rooms in suite for families and parties on every floor, with hot and cold baths.

The Table

Will always be furnished with the best supplies that can be procured in the market.

A Free Coach

Is always on hand to carry guests to the house.

No pains will be spared to make guests comfortable in every way.

A large reading room open night and day.

HENRY HAMMEL,
A. H. DENKER.

THE

Pico House.

THE ONLY

FIRST CLASS HOTEL

IN LOS ANGELES.

JOHN WHITNEY,
MANAGER.

UNITED STATES HOTEL.

THE CHEAPEST AND BEST FIRST-CLASS HOTEL IN SOUTHERN CALIFORNIA.

FREE COACH TO THE HOTEL.

HAMMEL & DENKER,
Proprietors.

WINE INTERESTS IN CALIFORNIA.

THE wines and brandies of California are everywhere asserting themselves successfully in competition with those of foreign production. There is evidently a growing taste among the people for the unadulterated native article. The total importation of foreign wines into California in 1874 was 801,800 gallons; in 1878 it was only 385,900 gallons, or less than one-half. And this tendency is even more striking when the imports of the whole country are taken into consideration. In 1872 the importation of wines into the United States was 7,080,000 gallons; in 1877 it was only 2,436,000, a falling off of more than two-thirds. It is to this improved public taste that the wine-makers of California must address themselves. They must study how to improve their manufactures in every possible way, both as grape-growers and wine manufacturers. They can soon acquire the sole control of the home market, if they will only use their advantages wisely. No country can compete with California in this branch of industry if the resources of the State are properly managed and fully developed. But in order to do this it will be necessary to watch every process with the most scrupulous care, and send out not a gallon that is not strictly first-class in every respect. If this is done for a few years, the supremacy of the market will have been gained and no competition need be feared.

This industry is the more to be encouraged because, if successful, it will ultimately become the mainstay of the people. Already, in its very infancy, it has attained proportions that are not to be despised. A comparison of the wine and brandy exports by sea and land during the last six months, with those of years past, will give some idea of its wonderful progress. They are as follows:

	Wines. Total gals.	Brandies. Total gals.
1875	1,601,467	42,318
1876	1,118,048	69,080
1877	1,465,592	138,982
1878	1,912,187	129,190
1879 (six months)	3,122,612	81,046

A detailed examination of the wine exportation for the first six months of 1879 shows an increase of nearly 300,000 gallons over the first six months of 1878, equal to the entire increase of exports for the year 1878 over 1877. It is a steady increase right along from 1875, with a tremendous leap forward in the first half of this year. This is a very gratifying progress, and if it can be kept up, as no doubt it will be, during the second half of this year, it will place California in the front rank of wine and brandy producing countries.

Nor are the advantages of this prodigious increase confined to manufacturers and exporters. Grape-growing is rapidly becoming one of the most profitable branches of agriculture. As the business increases the price of grapes advances. In 1876 the price of Mission grapes ranged from $7.50 to $10 per ton, and of other varieties from $14 to $18. Last year there was a very encouraging advance, and this year Mission grapes command from $14 to $16 per ton in the wine-making districts, and other varieties from $20 to $24 per ton. And the crop this year will be considerably larger than it ever has been before. The best authorities estimate that the total vintage of the season will exceed six millions of gallons. It will easily be seen from these figures that grape-growing is not only very profitable, but that it will soon be equal in value to some of the cereals, so far as the agriculture of the State is concerned. And from this time forward there is likely to be a continual increase in consumption, and consequently a greater demand for grapes, and an increased profit to the viniculturists.—*San Jose Mercury.*

OUR WINES.

California wines are finding good market abroad. In Los Angeles it is stated there are not now 20,000 gallons of marketable wine in the cellars, so great has been the call for it in the East, both for consumption and export.

SATISFACTORY.

The fruit crop of the State at large have been very satisfactory to all concerned. Nuts and almonds are alike promising, and the yield will be much larger than ever before.

MR. RIBOTTON, of Spadra, Los Angeles County, planted seven acres of ground, 18 pounds to the acre, with Odessa wheat. A part of it was irrigated, the wheat falling down and getting wet; no part of the field showed rust. The results at harvesting were 41 bushels of good wheat to the acre, and six sacks of cleanings.

Quite a large acreage has been planted this year, and we request a report from every farmer of its growth and prospects, and later, of the experiments and results in grain harvested.

SORGHUM SUGAR.

THE Chicago *Tribune*, one of the most ably conducted journals in the United States, always on the lookout for anything that will benefit the people, is urging the farmers of Illinois and other Western States to cultivate sorghum for sugar. It explains that sorghum is successfully grown wherever Indian corn will grow, from Minnesota to Texas. The cultivation is the same as that of corn. But while an average acre of corn, say 40 bushels on good land, is worth at home but $10, the average product of an acre of sorghum is, at what is claimed to be a low estimate, 2000 pounds of raw sugar. The average price of raw sugar (imported) is 5 to 6 cents per pound; so that, unless the *Tribune* is much in error, good corn land in Illinois would produce, planted and cultivated in sorghum, $100 per acre. Of course there is trouble and expense in the expressment and boiling of the sorghum juice and the graining of the sugar; but making due allowance for all this, there still remains a wide margin for profit over any other Western crop. As to the market, it is unlimited. The United States is now, and for years has been, importing 650,000 tons of foreign-made sugar at an average above 5 cents per pound. A hundred million dollars a year has not much more than paid for our sugar imports during the last ten years. If we can save this by the cultivation of sorghum, in the corn-growing states, it will amount to more for our farmers than the entire yearly gold and silver yield of all our mines. Indeed, the Washington Bureau of Agriculture states as a fact that our foreign sugar imports have cost us more since 1849 than all the money our gold and silver mines have produced.

The point to which the *Chronicle* directs the attention of its readers is this, that if Illinois or any other of the corn states of the west can successfully cultivate sorghum for sugar, there are tens of thousands of acres in this State that could be more profitably turned to that account; and the home market is sufficient for all that can be produced for many years to come, at rates above the average at the east. In 1878 we had 120,000 acres cultivated in corn, the average per acre being above that of the Eastern corn States. The leading corn counties were: Sonoma, 50,000 acres; Los Angeles, 25,000, averaging 40 bushels to the acre; Ventura, 8000 acres, with 50 bushels per acre; San Bernardino, 3000 acres, 30 bushels to the acre. Amador, Sacramento, Santa Barbara, Napa, Merced, Monterey, San Benito and many other counties produced each over 800 acres, at a fair average per acre. Tulare, which, from its soil and climate, should be a great corn county, had but 1400 acres, with an average above the State of Illinois; and Fresno and Kern, also well adapted in all respects to corn, produced none. There is reason to believe that the alluvial and irrigated lands of Kern, Tulare, Fresno, Merced and Los Angeles are as good as the best on the continent for corn. This crop, like sorghum, requires warm nights to perfect its growth. Hence it does not do well along the coast, nor at altitudes above 2000 feet, because there the nights are cold throughout the season of its growth. The same law applies to sorghum. Wherever, as in Lone Valley, on Russian River, at the Monte Los Angeles, in San Bernardino, Ventura, San Benito, the upper San Joaquin and Tulare Lake country, corn does well, sorghum would do well and pay better than any other crop now cultivated, without the least danger of overstocking the market with its product, sugar. One great advantage in the cultivation of this article, in this State, to the farmer, would be in the item of transportation. It would cost no more to get a ton of sugar, worth $100, to market, than a ton of wheat, worth $30; and the domestic market would take all that was produced.—*S. F. Chronicle.*

MAJ. TOLEN says he finds that one of the greatest objections to John Chinaman is, that he comes around early in the morning and wakes the farmers up to sell them vegetables, cheaper than they can raise them on their own land, with their own labor.

R. G. CUNNINGHAM,

DENTIST,

74 Main Street,

Los Angeles, Cal.

Laufranco's Building.

DRUGS AND CHEMICALS.

The largest stock of Drugs, Chemicals, Patent Medicines, Perfumeries, Toilet articles in Southern California, at the very lowest possible prices.

Agents for Humphrey's Homeopathic Specifics and Holman's Liver Pad.

PRESCRIPTIONS A SPECIALTY.

Put up at all hours of the day and night.

HEINZEMAN & ELLIS,

72 Main Street,

LOS ANGELES, CAL.

Cash Dry Goods House.

Your Patronage Solicited.

Good Goods.

Uniformly Low Prices.

Call and Examine.

—Also—

Men's Furnishing Goods.

Special Inducements in

Linen Bosom Shirts and Underwear.

Always glad to show goods.

Respectfully, B. F. COULTER.

No. 32 Baker Block, Los Angeles, Cal.

CITY OF PARIS,

EUGENE MEYER & CO.,

WHOLESALE AND RETAIL DEALERS IN

FOREIGN AND DOMESTIC DRY GOODS,

Clothing, Furnishing Goods,

Boots and Shoes, Hats, etc.

53 and 55 Main Street,

Los Angeles.

INSURANCE AGENCY.

A. BERDMAN,

Ducommun Building, Los Angeles.

FIRE—LIFE—ACCIDENT.

FIRE INSURANCE COMPANIES—Imperial of London; London of London; Northern of London; Queen of Liverpool; Western of Toronto; Hartford of Hartford.

LIFE AND ACCIDENT—The Travellers' Life and Accident Ins. Co. of Hartford.

All forms of Life and Accident Policies issued, also, Railroad Accident Policies for $5 cents a day, insuring $5000 in case of death, and $10 a week in case of accident. Attention is called to the combined life and accident policy of this company.

"A PENNY SAVED IS EQUAL TO TWO EARNED."

Buy Your

PICTURES and FRAMES

—OF—

J. A. VALDER,

38 Spring St., Strelitz Block,

At Wholesale Prices, and save money. Picture frames made to order. Bro frames made for Moss Hard, Worsted and Wax-work.

Y. PONET. B. F. ORR.

PONET & ORR

GENERAL FURNISHING UNDERTAKERS

No. 66 Main St.

Agents for Raymon's Metallic Burial Cases and Caskets of New York. Undertaker's goods wholesale and retail. Particular attention given to embalming bodies for shipping East.

R. M. WIDNEY,

Attorney at Law.

LOS ANGELES,

California.

S. C. HUBBELL,

ATTORNEY AT LAW,

Rooms Nos. 3 & 4, Ducommun's Blk,

Cor. Main and Commercial Streets,

LOS ANGELES, CALIFORNIA.

A. BRUNSON. G. WILEY WELLS.

BRUNSON & WELLS,

Attorneys and Counsellors at Law.

Nos. 11, 12, 14, 16 and 17, Baker Block.

Will practice in the Supreme Court of this state, and of the United States, and attend to all business before the Departments at Washington, D. C.

Harper, Moore & Co.,

110 Main Street, Los Angeles.

Call on us for

Hardware, Tinware, Stoves,

Agricultural Implements,

And

Averill Mixed Paints.

Plumbing, Tinning and Gas Fitting done on short Notice.

Well and Water pipe always on hand.

Give us a call and we will save you money.

Respectfully, HARPER, MOORE & CO.

SUB-IRRIGATION!

The attention of Orchardists, and those planting Orange or Lemon Groves, Small Fruits, etc., is invited to our system of Sub-Irrigation as practically tested in this city, by which fully three-fourths the water ordinarily used and nearly all the labor of irrigation is saved, the deep rooting and healthy growth of trees insured, and the ground prevented from baking. The manufacture of Reservoirs, Irrigating, Water and Sewer Pipe a specialty.

ASBESTINE STONE CO.,

East Los Angeles.

E. NAUD. G. G. WEYER.

E. NAUD & CO.

WINE GROWERS

—AND—

Wholesale Liquor Dealers.

California Grape Brandy in Bond.

Sole agents for the Whiskies of G. H. Chase & Co., Louisville, Ky.

Joe Bayer, of Congress Hall, has just received a consignment of Bass Lager Beer. It is a superb article, and cannot be excelled as a draught beer. Oysters, Shrimps, Hot and Cold Lunches at all hours, constantly on hand. Give him a call. Corner Main and Requena Streets, opposite the U. S. Hotel.

TAKE NOTICE.

To those intending to plant orange and lemon trees, I would recommend the best varieties of Thornless Trees. Catalogue with full particulars sent free.

Address,

THOS. A. GARLY.

P. O. Box, 188. Los Angeles, Cal.

Markets.

Commercial Review.

As the holiday season comes on, most all kinds of business are lighter and prices rule quiet. The holiday trade has not started off so brisk for a number of years, showing that money is more plentiful and that our people are enjoying, substantially, better times.

The rains have come in good time for the farmers, and the prospects were never more flattering in Southern California than for the coming year.

A large average of wheat is being planted, new vineyards are to be set out, and altogether the farming interests may be said to be booming.

The grape crop has been sold at good prices, and we predict good prices hereafter. The wool crop has been sold also at good prices, and the sheep market has largely advanced.

It is early yet for quotations on oranges, but we can assure our growers that good round prices can be had as soon as their oranges are ready for market. Parties are offering to engage in San Francisco at $25 to $30 per 1000.

Retail Groceries, Etc.

Butter, Cali.			
Choice, lb....	25	@	35
Cheese	18	@	20
Eastern	25	@	30
Lard, Cal.....	8	@	10
Eastern	15	@	20
Flour, ex. fam			
bbl	8 00	@	9 00
Capitol Mills,			
⅜ cwt.....	00	@	3 15
Pion'r ⅜ cwt	00	@	3 50
Superfine, do	00	@	2 75
Graham 50-lb			
sack.....	00	@	1 55
Buckwheat..	00	@	45
Oatmeal Cal, 10-			
lb sacks....	00	@	50
Eastern do.	00	@	70
Corn Meal, lb..	1c	@	1½c
Sugar, w. crshd	12½	@	13½
Light Brown	8	@	9½
Coffee, Green	25	@	35
Tea, Fine Bl'k	50	@	1 00
Finest Jap'n.	55	@	1 00
Candles, Adm'te	18	@	25
Soap, Cal. ...	5	@	10

Rice	8	@	10
Yeast Fwdr, doz	50	@	2 00
Can'd Oysters,			
2oz.....	2 00	@	3 50
Syrup, ⅜ Gd'n	75	@	1 00
Dr'd Appl's, lb	7	@	12
Gov Prunes ...	12½	@	10
Figs, Cal.....	2	@	15
Peaches.....	8	@	20
Oils, Kerosene	25	@	40
Honey in comb	15	@	20
Do. No 2....	10	@	12
Extracted ...	8	@	10
Bacon, Cal....	8	@	10
Hams, do.....	9	@	12
Eastern	15	@	18
Potatoes, ctl...	75	@	1 00
Onions, ctl....	70	@	1 00
Beans.....	1 25	@	1 50
Butter.....	1 00	@	1 50
Lima.....	5 00	@	6 00
Fresh Beef....	5½	@	6½
Round steak	00	@	8½
Sirloin.....	10	@	12
Porterhouse.	12½	@	15
Chicke s.....	3½	@	4½

We desire to call the attention of the people of Southern California and the traveling public to the Drug House of Heinzeman & Ellis, Los Angeles, Cal. They carry an immense stock of goods —Toilet Articles innumerable—and are thorough Druggists and Chemists. Any one ordering goods from their house will always receive pure fresh goods at lowest prices.

Messrs Noel & Felt have become noted as caterers, by the grand lunches "set up" in their rooms, noon and night, at No 114 Main Street. Their Billiard Room is one of the most cozy places in the city, and by their generous and fair treatment of the public they have built up a large trade.

AS OTHERS SEE US.

THE LOS ANGELES NURSERY.—During the recent trip of the proprietors of the *Rural Press* to Los Angeles, they took occasion to visit, among other localities, the Los Angeles Nursery, occupying a tract of fifty acres or more, which has been for some years, and still remains, under the management of Mr. Milton Thomas. Having seen, we can speak from personal observation of the superior care and skill exercised in the management of this nursery. It is located in the western suburbs of the city, and it is seldom that one can meet with a locality so well adapted to the purpose, or one the advantages of which are kept so well up to its possibilities. The nursery is stocked with about 250 varieties of fruit trees—deciduous and semi-tropical. The proprietor employs first-class help, and great care is taken in the introduction of new varieties to have them well tested in their adaptation to this coast before offering them for sale on their merits. Care is also taken in budding from well-known varieties, to see that every tree is true to its label. All kinds of semi-tropic and deciduous trees can be obtained in any desirable quantity, and at prices which will be satisfactory, by addressing Milton Thomas, Los Angeles, Los Angeles county, Cal.

J. G. JACKSON. W. G. KERCKHOFF. JAMES CUZNER.

JACKSON, KERCKHOFF & CUZNER,

Dealers in

Lumber, Windows,

Blinds, Doors,

Moldings, Laths, Pickets, Shingles,

Plaster Paris, Cement and Hair.

Cor. of Alabama and First Sts.

Los Angeles, Cal.

NOEL & FELT,

DEALERS IN

Imported and Domestic

LIQUORS AND CIGARS,

114 Main Street,

Los Angeles.

☞ Agents for Nobles Liquors.

D. M. GRAHAM,

Land and Loan Broker,

Is prepared to place loans on real estate security at current rates of interest without delay.

Rooms 7 and 8, Commercial Bank Building, Los Angeles, California.

The Pasadena Land-office.

The climate, soil, water, system, beautiful scenery, special and general advantages of Pasadena are now too well and widely known to require any puffing at my hands. See and you will believe. I can offer you, in all parts of the country, your own kind of land, at your own price, from $5 per acre, upward; and I will take pleasure in showing you about the country.

D. M. GRAHAM.

WALTER S. MOORE,

FIRE INSURANCE.

Policies written here on

BUILDINGS OF ALL KINDS, GRAIN AND HAY.

Special rates on growing crops.

36 SPRING STREET.

Central Block, Los Angeles, Cal.

Fruit and Farming Land

(For Sale). All Irrigable.

800 ACRES VERY CHOICE FRUIT AND farming land at Orange, Cal., all with water right and water stock, etc., under the Santa Ana Valley

Irrigation Co.'s Water Ditch,

Will be sold on the most reasonable terms, entire, or in lots to suit. Address,

Dr. H. S. Orme,

Los Angeles, Cal.

PURE

And Unadulterated Candies, made fresh every day at the

LOS ANGELES CANDY WORKS,

Spring Street, Los Angeles.

A pure, healthy article of candy is seldom to be found. This house pride themselves on the purity of their stock. Ladies' lunch-room attached.

FOR SALE OR TO LET.

A Blacksmith, Carriage and Paint Shop, with tools, all ready for business. Situated in a good locality in Los Angeles.

Apply to N. C. Carter.

Room 1, Baker Block.

REMEMBER

In buying your Groceries, Provisions, Crockery, etc., that there is but one store in Southern California where goods are bought and sold exclusively for cash, consequently the only place where you can get the same at any time, and under all circumstances, at the very lowest possible prices, and that is the

AMERICAN CASH STORE,

C. W. GIBSON, Prop.

No. 48 and 50 Spring St.,

Tablets issued. Los Angeles.

R. J. Trumbull. Chas. W. Bacon.

R. J. TRUMBULL & CO.,

Wholesale and Retail Dealers in

Seeds, Trees, Bulbs, PLANTS,

FANCY POTTERY, ANTIQUE WARE, RUSTIC BASKETS, GARDEN TRELLISES, GARDEN HARDWARE, LAWN MOWERS, ETC., ETC.,

Nos. 419 and 421 Sansome Street,
SAN FRANCISCO.

Catalogues on application.

RIVERSIDE LANDS!

The Riverside Land and Irrigating Company, of San Bernardino County, offer

15,000 ACRES!

Of the most desirable land in Southern California for Semi-Tropical

FRUIT GROWING
AND
Beautiful and Healthful Homes.

These lands are located in the Santa Ana Valley, San Bernardino County, 50 miles southeast of Los Angeles, and 7 miles south of Colton, a station of the Southern Pacific Railroad.

Twenty-eight miles of irrigating canals are now completed, and there is abundant water in the dryest seasons to irrigate all the lands offered by the Company. About 1,000 inhabitants are now in the Colony—enterprising and intelligent people. We have good schools, four church organizations, daily mail, telegraph line, newspaper, etc. Lands are offered at moderate prices and on liberal terms, and no lands are sold but to actual settlers. I invite all seeking homes in this portion of the State to call and see us before purchasing elsewhere. Every facility will be afforded for the examining of the lands offered.

S. C. EVANS, President R. L. & I. Co.

LAKE VINEYARD
LAND AND WATER ASSOCIATION

This Association is now offering for sale on easy terms some of the finest lands in California. They are situated about 1000 feet above the sea, in the rich and beautiful valley of San Gabriel, protected on the north by the Sierra Madre Mountains, while on the west a range of hills and mountains tempers the chill of the sea breeze as it passes over them for forty miles before reaching this locality. This combination of advantages makes it a delightful residence for invalids, while the lands produce all the grains and fruits of the temperate zone, and many of the products of the tropics. The land is supplied from large reservoirs fed by mountain springs, and carried in pipes along all the avenues of the tract which is divided into ten-acre lots, with water rights for every lot. This property is but seven miles from Los Angeles, and near the line of the Southern Pacific Railroad. For prices and full details, address

F. W. WOOD,
Secretary L. V. L. & W. A.

Wm. H. Perry. W. W. Woodworth. S. H. Mott.

PERRY, WOODWORTH & CO.,

STEAM
Sawing, Planing & Molding Mills,

At their Lumber Yards,

76 Commercial St., Los Angeles Cal.

Dealers in

Lumber of all kinds, Plaster, Hair, etc.

Also manufacturers of

Doors, Sash, Blinds, Moldings and cut and turned work of all descriptions.

Dotter & Bradley,

Dealers in

Furniture, Carpets,

Wall Paper, etc.

80, 82, 84 Main Street.

Los Angeles, Cal.

Largest Stock
And
Lowest Prices.

Phineas Banning.

Forwarding
—AND—
Commission Agent,

Wilmington, Los Angeles Co., Cal.

Vessels Towed,
Goods Lightered.

Lumber and Grain stored with accustomed promptness.

BANKING HOUSES.

COMMERCIAL BANK
OF LOS ANGELES.

Authorized Capital $300,000

E. Bollenbeck ..... President
E. F. Spence ..... Cashier

DIRECTORS.

A. H. Walker, W. Woodworth,
S. H. Mott, H. Marsh,
I. Lazarus, O. S. Wheeler,
E. F. Spence, J. E. Bonsall.

This Bank is prepared to receive Deposits on open account, issue Certificates of Deposit, and transact a general Banking Business.

Collections made and proceeds remitted at current rates of exchange.

FARMERS' & MERCHANTS' BANK
OF LOS ANGELES.

CAPITAL $500,000

Isaias W. Hellman ..... President
L. C. Goodwin ..... Vice President
John Milner ..... Secretary

BOARD OF DIRECTORS.

Isaias W. Hellman, John S. Gray,
O. W. Lockin, O. T. Poole,
L. C. Goodwin, A. Glassell,
Phil. Garnier, Dan. Ambrose,
John Macfarl.

Exchange for sale on
NEW YORK, LONDON, DUBLIN, FRANKFORT, PARIS, BERLIN, AND HAMBURG.

Receive Deposits and Issue their Certificates.

Buy and sell
LEGAL TENDERS, GOVERNMENT, STATE, COUNTY AND CITY BONDS.
Will also pay the highest price for gold and silver bullion.

LOS ANGELES COUNTY BANK
MAIN STREET.
LOS ANGELES, CAL.

Capital Stock (paid up) $300,000

J. S. Slauson ..... President
R. S. Baker ..... Vice President
J. M. Elliott ..... Cashier

DIRECTORS.

J. S. Slauson, L. W. Stewart,
T. A. Hazard, Stanley G. Fraser,
J. Ditz, Geo. H. Francisco.

Receive Savings Bank Deposits.
Buy and sell exchange on San Francisco, New York, London, Paris, Berlin and Frankfort.
Buy exchange on all parts of the United States and Europe.
Receive money on open account and Certificates of deposit, and do a general Banking and Exchange business.

Able Stearn's Ranchos.

THE

Center of Los Angeles Valley,

Los Angeles Co., Cal.

80,000 Acres for Sale

WILL BE

Sold in Tracts to Suit,

AT

Very Low Prices, and on Easy Terms and Low Rate of Interest.

Six Hundred Farms

Already Sold and Improved.

This Land is within the

Artesian Well Belt,

and has water near its surface.

Roads are to be laid out on every section line, forming blocks of one mile square, with roads on all sides and on many quarter section lines.

See Map of Los Angeles County for location of lands.

Convenient to markets and competing lines of shipments for produce, etc., etc.

Churches, Schools, and Societies, as good as in many localities in the East.

For terms, prices, etc., address

Alfred Robinson,
120 Sutter Street,
San Francisco, Cal.

Or

Wm. R. Olden,
Anaheim,
Los Angeles, Cal.

SIERRA MADRE VILLA.

A Private Hotel on the table lands of the Sierra Madre Mountains, in full view of the famous Orange Orchards of the San Gabriel Valley in Southern California, for the accommodation of parties seeking a mild and healthful climate. It is four miles from the Mission San Gabriel Railroad and Telegraph Station; thirteen miles from Los Angeles. The buildings are entirely new, lighted by gas, and with all the comforts of an Eastern home. For further information

Address **W. P. RHOADES**, San Gabriel, Los Angeles Co.

LANDS!

FOR SALE – TO RENT – AND FOR DISPOSAL OTHERWISE,

In different portions of Los Angeles County and City.

Especially upwards of 2000 acres of land well adapted to the growth of vineyards, to be disposed of on shares, i. e., one portion to be cultivated, planted and kept in grape vines for three years, in consideration of conveyance of another portion. Of the lands last referred to a large body is on the Tujunga Ranch, and is irrigable from the Tujunga Creek during the winter and up to the middle of June. Some capital as well as labor is requisite for constructing ditches and clearing off the brush which grows on about two thirds of the land. Any company or colony seeking a location desirable as an investment, or as profitable, healthy and pleasant homes, should look at these. For particulars, apply to

HUGH GLASSELL,
At Office of Glassell, Smith & Smith,
TEMPLE BLOCK, LOS ANGELES CITY.

S. H. SEYMOUR. J. P. DERMAN.

RUSS HOUSE

Montgomery Street, Extending from Pine to Bush Streets, San Francisco.

S. H. SEYMOUR & CO., Proprietors.

The leading Business and Family Hotel of San Francisco. Having been recently enlarged and newly furnished, now contains 700 elegant rooms, at prices lower than any other first-class Hotel on the Pacific Coast. 100 Rooms at $2.50 per day; 150 Rooms at $2.00 per day; 50 Rooms at $1.50 per day. And still lower special rates for Excursions and other large Parties. The table is unsurpassed by any other hotel. Gas fitted in the city, being supplied with the best the market affords. Public and attractive Omnibuses will be found in waiting upon the arrival of all trains and steamers to convey guests to the Hotel, Free of Charge.

FEBRUARY

SEMI-TROPIC CALIFORNIA AND SOUTHERN CALIFORNIA HORTICULTURIST.

LOS ANGELES, CAL.
CARTER & RICE,
PUBLISHERS
VOL. III. 1880. No. 2.

THE CHEAPEST

—AND—

BEST

GROCERIES

—AT—

GEO. D. ROWANS,

Baker Block,

Los Angeles, Cal.

LANDS FOR SALE.

80 ACRES of excellent fruit and vineyard land, one half mile from city limits. Elegantly located to divide into small tracts of 5 to 20 acres each. Streets on three sides. 20 acres under fence. Small house and out-houses. Title U. S. Patent. No better bargain in the country.
Price, $40 per acre.

10 ACRES of land. Beautiful suburban home on Main street. Two good houses, barns and out-buildings, the entire tract set out with the choicest varieties of semi-tropical and deciduous fruits, a large quantity of imported plants and shrubery. Improvements worth double the amount asked. Price, $6000

30 ACRES on Washington street. Beautiful vineyard or fruit land. Elegant view of the valley. Splendid place for a business man to build a home. Very choice bargain. Price, $1100

320 ACRES farm land in the San Jacinto Valley, 12 miles from R. R. Station, in rapidly improving country. Well adapted to fruit and vines as well as grain. Water in great abundance 14 to 18 feet from surface; no better farm land in the state. Price, $2000.

The above are only a few from the many pieces of Real Estate upon our books for sale. We are offering better bargains than ever were offered before. No better time than the present. Address:

A. F. White & Co., Real Estate Ag'ts.
No. 1½ Spring Street. Los Angeles, Cal.

S. HELLMAN,

No. 95 Spring St.

Has received a large and complete line of

Holiday Goods,

Books, Stationery, Fancy Goods, Toys, Fine Hardware, Soaps, etc.

A. LUSK & CO.,

COMMISSION MERCHANTS,

Wholesale dealers in green, dried and canned fruits, and general farm products. Their long experience in the business, and high, honorable dealing, entitle them to the patronage of all shippers.

534 & 536 Clay St. 529 & 531 Merchant St.
SAN FRANCISCO, CAL.

T. E. ROWAN,

REAL ESTATE AGENT

—AND—

COMMISSION AGENT.

Houses, farms, ranchos and orchards to rent.

77 Downey Block,
Los Angeles, Cal

L. LICHTENBERGER,

Manufacturer of all kinds of

WAGONS, CARRIAGES, ETC.,

Main Street,
Los Angeles, Cal.

The best kind of work guaranteed.

DILLON & KENEALY,

DEALERS IN

Staple and Fancy Dry Goods.

All the latest novelties and new styles received weekly.

We invite you to call and inspect our goods and prices.

MAIN STREET,
Los Angeles, Cal.

THOROUGHBRED POULTRY.

Largest stock of Imported Fowl on the Pacific Coast. Bone meal and poultry supplies always on hand. General Pacific Coast Agent for the American Poultry Food. It will make your hens lay, and prevent disease. For raising young chicks it is almost indispensable.

My yard contains choice strains of the leading varieties, including Leghorns, Plymouth Rocks, Pekin Ducks, etc. Eggs for hatching packed to go any distance. Prices always reasonable. Safe arrival of fowls and eggs guaranteed. Importer and Breeder of the Improved Short-Nose, Dish-Faced Berkshires. Also, Magie Poland-China Pigs.

Letters of inquiry, enclosing stamp, cheerfully answered. Address,

WILLIAM NILES,
Importer and Breeder.
P. O. Box 250. LOS ANGELES, CAL.

SAWING THE LOG.

THE GREAT SUCCESS
OF THE
WONDERFUL IMPROVED
Labor Saving RIDING SAW MACHINE is fully demonstrated in the above cut in use and the power required for the. It saves loss of saw dust. One man can saw more logs or cord wood in one day and easier than two men can in the old way. It will saw a tree or log in three minutes. Every Farmer needs one. Township agents wanted. Send for Illustrated Circular and Terms.
Address W. W. BOSTWICK & CO.,
178 Elm St., Cincinnati, O.

FREE!

The March number of this paper to any address.

CARTER & RICE,
Los Angeles, Cal.

G. B. Sanguineti, Los Angeles. | A. Vignolo, San Francisco.

La Esperanza Store.

SANGUINETI & VIGNOLO.

Wholesale and Retail Dealers in

GROCERIES, PROVISIONS,

WINES AND LIQUORS.

COMMISSION MERCHANTS.

☞Highest price paid for all kinds of country produce.

108 Main Street,
Opposite Court House. Los Angeles.

EVERYBODY

Knows or should know that

The Grange Store

—IS—

Noted for its Low Prices

—AND—

Choice Groceries.

Highest Prices Paid for all Kinds of Country Produce. Gilt Edge Butter a Specialty.

SEYMOUR & CO.

Clearing out Sale

—OF—

FRUIT AND ORNAMENTAL TREES.

I offer my whole nursery of Northern, Semi-tropical and Tropical fruit and ornamental trees, shrubs, and plants for sale at half price.

Fine Orange trees budded on three to four year old roots in the best kinds at eighty dollars per thousand, ten dollars per hundred, or eight for one dollar.

Every bud warranted and complete satisfaction guaranteed.

The finest collection of new and rare plants.

American, Italian and Japanese Persimmons, for buildings, from eight to ten dollars per hundred.

F. GRELCK,

Depot on First St., between Main and Spring Sts.
P. O. Box 232. Los Angeles.

SEMI-TROPIC CALIFORNIA

DEVOTED TO AGRICULTURE, HORTICULTURE, AND THE DEVELOPMENT OF SOUTHERN CALIFORNIA.

VOL. III. LOS ANGELES, CAL., FEBRUARY, 1880. No. 2.

LOS ANGELES COUNTY, CALIFORNIA.

LOS ANGELES COUNTY, Cal., fronts on the Pacific ocean, with a frontage of about 100 miles. It lies south of San Francisco 396 by steamer and 375 miles by railroad. Lines of steamers and sail vessels constantly ply between the Los Angeles ports and other commercial points. Five lines of railroads are in the county, one extending north to San Francisco, and connecting with the entire system of railroads in the United States. One line extends from Los Angeles city, 21 miles to Wilmington harbor, another extends 35 miles southerly towards San Diego, another extends from Los Angeles city east into Arizona, and is fast pushing on to a connection with the overland southern railroads. This connection will be made, as announced by the owners of the road, within fifteen months from October, 1879. Another road extends west to the ocean at Santa Monica. These five railroads radiate from Los Angeles city through the productive parts of the county. One runs north, one west, one south, one south-east and one east.

LOS ANGELES VALLEY.

This valley fronts on the ocean over 100 miles. The high mountains on the north-east and south-east form about one-third of a circle, reaching the ocean on the north and south of the valley, and extending back from the ocean at the farthest point about 40 miles. The slope of the land is from these mountains south-west to the ocean, with a fall of about 200 feet. The highest parts of the mountains are over 5,000 feet above the ocean.

THE GEOLOGICAL FORMATION OF THE VALLEY.

Artesian wells have been sunk in various parts of this valley, and from this work it appears that there are several blue clay formations underlying the whole valley. These formations, apparently, form several parallel basins, the rims of which crop out at the foot of the mountains and along the ocean coast. The upper basin is about 15 feet below the lowest part of the surface of the valley, and might be called a vast lake of water filled with soil washed from the mountains, with an upper surface irregular, and forming hills, table lands and low lands.

The water level is very nearly the same all over the valley, hence the depth to water depends upon the surface of the ground, it being a greater distance to water from the tops of the hills, ridges or table land than from the surface of the low bottom lands. The main rivers or mountain streams—the Los Angeles river, the San Gabriel river and the Santa Ana river—flow down from the mountains and empty over the rims of the clay basins, thus keeping the basins always full of water. The surplus overflows the lower rim into the ocean. Part of this water, with other waters, flow into the lower clay basin, which is somewhat parallel to the upper, and distant 50 to 150 feet from it, thus probably creating the supply for the artesian wells. In addition to the foregoing general geological formation of basins, there are several small local basins in parts of the valley.

If the reader will take a pan, say 15 inches in diameter and 6 inches deep, and fill it half full of dirt; then take a 12-inch pan, place it in the first, and fill it with dirt to the surface, and then take several small saucers and place them in the second basin at different points; then cover it all with dirt so as to represent hills, table land and valleys, an approximate idea of the Los Angeles valley may be had. Fill all with water and elevate one side, slanting it to the south and west, and the reader can then understand the relation of the water to the surface of the soil.

DIVISION OF SOILS AS TO WATER.

There are about 100,000 acres of land where the water is from 3 to 12 feet from the surface. This is mostly a deep, rich loamy soil, free from clays and cloddy material, and is well adapted to the production of all vegetation needing much moisture and having short roots. Corn, beets, alfalfa, and all similar products, grow and produce most abundantly on this land. This land is subject to a few frosts between December and April of each year, and on it should not be cultivated such things as frosts will kill. Artesian wells can be had on all this land at a depth of about 100 feet.

The next grade of soil represents a surface which is from 12 to 20 feet above the water level. The soil is a loamy, gravely, warm soil; of this there are probably over 200,000 acres. Frost seldom touches it, and then very lightly. It is adapted to the growth of all vegetation, such as vines, trees, etc., which has long roots. With irrigation by windmills, or otherwise, it produces all short-rooted vegetation. On this soil all semi-tropic fruits do well.

The next grade of soil is table land, and hills, and foot lands of the mountains. The surface of the soil is from 20 to 80 feet above the water level. With water for irrigation, this constitutes the choice lands of the county for all horticultural products, from the banana up to the northern fruits. On portions of this land no frost ever falls. The tomato vine will bloom and bear the whole year round. On the rest of this grade of land only the lightest traces of frost are seen in occasional years. This is also the wheat land of the county.

The last grade of soil is the mountains, rough, rocky and broken, covered with bushes, and brush, and stunted vegetation. Neglected and despised, and sneered at as worthless, yet the writer believes that it contains the greatest and most desirable possibilities of any soil in the world. It only awaits the proper thought to be evolved from some brain and carried into execution, in the proper way, to transform this ugly mountain land into the most beautiful and profitable homes the sun has ever shone upon.

The intelligent reader will readily see from the foregoing brief sketch of the topography of the valley and its formation, that nearly every product known to man from the tropic to the temperate zones can find a suitable soil in this place. Here, as in other places, it requires care, industry, economy, and sense to make a success.

If the individual will select the soil adapted to the products he wishes to raise, and so cultivate as to give nature a proper chance, the yield will be entirely satisfactory and abundant beyond that of almost any other land. R. M. WIDNEY.

SEMI-TROPIC

CALIFORNIA

AND

SOUTHERN CALIFORNIA HORTICULTURIST.

AN ILLUSTRATED MONTHLY

Devoted to Agriculture, Horticulture, and the development of Southern California.

Terms $1.50, per year, in advance, postage prepaid.

Address, CARTER & RICE, Los Angeles, Cal.

CIRCULATION - - - - 5000.

FEBRUARY.

If you neglected during the holidays to square up your accounts, it is time to do it now. "Better late than never."

Know how you stand. The beginning of the year is the time to start off straight. Buy a few blank books in which to keep a record of all your business affairs, as well as of all experiments in farm, orchard, vineyard or business pursuits.

A diary of every day's events kept by the good wife or one of the girls or boys, would, at the end of the year, be a valuable and interesting book. Make an inventory of everything; keep an account of every cent paid and received, and you will find, at the year's close, that the financial department will be not the least interesting portion of your diary.

OUR MONTHLY SERMON.

Few are strong in their own strength alone. We all need assistance and encouragement to keep in the right path. And where, if not in our homes, must we look for this? There we expect sympathy in our sorrow, help in our time of need, kind, gentle words when we do wrong, and glad ones when our hearts are filled with joy. There the moral as well as the physical atmosphere must be pure and invigorating—the influences so attractive that all are contented and happy.

If in our homes less thought were given to vain display and more to making them truly beautiful, many who are now plunged in the deepest depths of sin would be safe within their circle. Our ears would not be so frequently shocked by tales of crime; for how often, on learning the history of some guilty one, have we found that their homes were unhappy. Thus, from them they were easily tempted into scenes which, in comparison with those of home, seemed full of beauty, but which, alas! generally end in ruin.

Wealth is not essential in making our homes lovely. It is true, riches can procure many things which are beyond the reach of the poor; their homes can be made stately and grand; but money cannot purchase loving hearts and happy faces, and those are necessary elements in a pleasant home. If you have but one room, make that a bower of neatness and order. A few books on the table, a picture on the wall, a flower in the window. These, with a glimpse of sunshine, a bright face and cheerful smile, make a picture which cause the most discontended to exclaim, "There is no place like home!"

Wives and mothers, make your home a place of beauty, a haven of peace and rest to the husband returning weary and perhaps disheartened from his day's labor. Let no complaint of your own care greet his ears; offer him bright smiles, gentle words, and loving acts. Let him associate everything that is pure and good with your name; forge round him such a chain of love as will draw him from every other influence to home and you.

And your children, give them all the innocent amusement you can. Let them think their happiest moments are spent under the roof-tree. Teach them to love and confide in you. Thus you will be able to guide them over the shoals of temptation, into the clear stream of an upright life, down which, after your care is withdrawn, they may glide safely to the Golden Gate.

Husbands and fathers, do not let your presence cast a gloom over the household; do not come with frowns or words of reproof; make your little ones love you; teach them to dread your absence and long for your return. When their glad voices ring out in tones of welcome, do not hush them nor their joyous laughter, the overflowing of happy hearts, but give them also kind and merry greeting. Enter their sports, live over your childhood's days with them. It is not beneath your dignity to give them happiness, and remembering how coldness chilled your own heart in your youth, give them plenty of warm, generous sympathy. And through all, guard and keep them from evil, for it is while young the seed is sown, which in time brings forth good or bad fruit.

Let all members of the family do their part toward making home happy. Then, as the years roll by, out of the fullness of their hearts each may say, "My home is to me the most beautiful on earth."

RIVERSIDE.

Raisin Figures from three small vineyards, the large ones doing as well or better—and last year was considered a short crop: Mr. R. H. Henderson, from two acres of vineyard (all he had), sold $912.50; expense, $171.25; profit, $741.25. A. P. Combs, from 890 vines, sold $794.00; expense, $319.00; profit, $474.88. H. A. Westbrook, from 600 vines, sold $398.11; cost, $102.85; profit, $395.26.

Second Annual Citrus Fair, at Riverside, will be held during this month (date not yet named). H. J. Rudisill and A. S. White, committee, with full powers to appoint sub-committees and complete arrangements for the Fair.

ORANGES.

PREPARATION FOR MARKET.

A CROP well grown is only half-way to market. The profits of orchardists depend much on preparing the crop for market, as well as knowing how, when and where to sell. In this article we will give directions for getting an orange crop ready for market.

Cut the orange off, cutting as close to the fruit as possible, and be careful not to bruise it; and then spread out for several hours; or until the dampness evaporates, which will have gathered upon the surface of the fruit. You need not feel safer to ship unless this moisture is first expelled. The drying out the moisture from fruit or vegetables before shipping goes to the bottom of the question of successful transportation, and the disregard of it probably produces evil results upon a wider scale than all other causes combined.

Having gathered and dried the fruit, assort it as to size and color, placing in the same crate only those oranges that are uniform in the two respects named. It is a mistake to mix large and small oranges in the same package, or those that are of a fresh bright hue, with such as are not. It helps the matter very little—in fact, it is a positive hurt—to hide the small, dark fruit in the center of the crate, surrounding them with the choicer specimens.

If your poor oranges are not too poor to ship, pack them separately, and ship your best fruit as first-class through and through, and get first-class prices. Wrap each orange in the thin paper used for wrapping fruit. Pack in close crate, arranging them in even layers, as close and snug as possible. Heap up the contents until, when you come to fasten down the cover, all your strength will be required to force it down to the level of the crate.

Have everything neat and attractive; the paper, the box, the cooperage and the marking. If all the large growers would adopt a co-operative plan of boxing and shipping, and stand together, good prices can be had, as well as low rates of transportation.

The Frost did no injury to the young orange trees in Fisher, Richardson & Co.'s nurseries, as we can testify from personal inspection. Their entire stock is in excellent condition, and ready for the market. We noticed the assorting of stock in this nursery, and it struck us as the model way of preparing trees for market. The trees are thoroughly assorted as to first, second and third grades; and what most nursery men would call second or third grade, they consigned to a fire. Many of the trees thus burned would have made good trees in the orchard, but Mr Richardson informed us that he would not allow a single tree to leave his nursery that he could not recommend. Another important feature in their trees is the good roots. Their tree digger, the only one in Southern California, is used as a root-pruner the year before digging, causing the tree to throw out many fibrous roots. The digging of the trees with their digger, saves all the roots without cutting.

We will answer all communications addressed to us in reference to California through this column. We will answer regular subscribers by personal letter, when stamp is inclosed for postage.

SOME QUESTIONS ANSWERED.

M. H. Parks, Martinsville, Ind: Dear Sir: We answer your inquiries in an open letter, as we can in this way reply to many others who have asked similar questions and will receive a copy of this paper.

1. The population of Los Angeles is 15,000; of the county, 40,000.

2. Unimproved land (without water) is worth from $10 to $15 per acre near the towns throughout the county; in the more rural districts much of it can be had at lower prices. With improved water privileges the first named can be had from $50 to $75 per acre, and the latter in proportion.

3. An orange orchard with trees in good condition, from five to eight years old, is one among the few things that are "without price," and no possessor of one desires to sell it. One thousand dollars, although an immense sum for one acre of land, would be scornfully rejected by most men for every acre of their precious orchards, which are better property here than a gold mine.

There is, however, one class of persons who are unwillingly anxious to sell valuable property at a very low rate. Many persons who came here when everything was booming, bought good land on credit, and borrowed money to improve it, will now sell for cost of improvements. The recent prevailing financial depression and depreciation of property reached even Los Angeles, and although values are now steadily increasing, many have become hopelessly involved by heavy rates of interest and five or more years' waiting for first results from crops. In consequence, many bearing vineyards and orange orchards can be had cheap, and there will never be as good a time to buy property in Southern California as now. We can not give you definite prices, but can repeat that they can be bought for small per cent. of first cost, including time and labor. Water rates in many cases belong to the land. Artesian wells are a success, and in operation at small cost on many farms.

4. You will find in another part of our paper more explicit information on this question, but we testify from our own experience in brief, the climate mild and equable; there is no one prevailing disease, or so say physicians who have practiced here for years, and malaria is unknown. The climate is well adapted to persons of bilious temperament.

5. Titles are generally good, and with ordinary precaution no trouble need arise.

6. Money can be loaned at one per cent. per month—we would say ten per cent. per annum can be had on number one securities for several years to come. Now is the time to come, and now is the time to make investments.

7. No sir, we have no lands to sell, nor are we interested in the sale of any in any way, shape or manner.

We have offices centrally located—Nos. 1 and 58, Baker Block—and the latch-string is out to all new comers. Our advice will be given free on any and all subjects, to those who come among us for the purpose of locating.

Climate.

War Department—Signal Service, U. S. Army. Local Observations. Los Angeles, Cal., December, 1879.

Highest Barometer, 30.468; date, Dec. 24.
Lowest Barometer, 29.728; date, Dec. 27.
Monthly Range of Barometer, 0.740.
Highest Temperature, 76.0°; date, Dec. 12.
Lowest Temperature, 30.0°; date, Dec. 25.
Monthly Range of Temperature, 46.0.
Greatest daily Range of Temperature, 33.0°; date, Dec. 12.
Lowest daily Range of Temperature, 4.0°; date, Dec. 19.
Mean of Maximum Temperatures, 61.6°.
Mean of Minimum Temperatures, 44.3°.
Mean daily Range of Temperature, 17.3°.
Total rainfall, 6.53 inches.
Prevailing wind, NE.
Total movement of wind, 3.387 miles.
Maximum velocity of wind and direction, 27 SE; date, Dec. 20.
Number of cloudy days on which rain fell, 5.
Number of cloudy days on which no rain fell, 3.
Total number of days on which rain fell, 10.

J. M. FRANTZ,
Sergeant, Signal Corps, U. S. Army.

Station: Los Angeles, Cal.
Date: January 1, 1880.

One of the chief advantages of California is its admirable climate. After a careful study of all the accessible books relating to the subject—and their number is large—I claim and believe it to be more conducive to health and comfort, and intellectual and physical activity, than of any other country in the world. Other climates may be better, but if so, their meteorological statistics are not within my reach, and they may belong to countries objectionable on account of their isolated situation or the semi-civilized condition of the inhabitants.

The climate of the valleys in California is unlike that of every other country, and particularly dissimilar to that of the States east of the Rocky Mountains, resembling in general character that of Spain. Its chief peculiarities, as distinguished from the Eastern States, are, that the winters are warmer; the summers—especially at night—cooler; the changes from heat to cold not so great nor so frequent; the quantity of rain less, and confined principally to the winter and spring months; the atmosphere drier; the cloudy days fewer; violent wind storms, thunder, lightning, hail, rain, snow, ice and the aurora borealis, rarer: and the winds more regular—blowing from the north for fair weather, and from the south for rain.

* * * * * *

Italy has the same general shape, direction and length as California, but is five degrees further north. Much of the Golden State has the winter of South Carolina and the summer of Rhode Island. The orange, the lemon, the olive, the fig, the pomegranate, the vine, the peach, the apple, wheat and barley, all find most congenial climes in California.

Healthy Growth.—The climate of the coast of California is more favorable to human growth and comfort, than that of Italy, Greece or Palestine, countries which have had the repute, from remote times, of having the most auspicious skies in the world. * * * Domestic animals and cultivated plants grow with a rapidity, and the fruit trees, cereals, and kitchen vegetables, bear with a fecundity unsurpassed and probably unequaled in any other part of the world. In my researches I have not been able to learn of crops elsewhere so large as many recorded in California.

The Spanish Californians, before the American conquest, had remarkable large families, and were long-lived beyond example. In no place known to me were there so many centenarians relatively. * * * * The records of the Mission and parish church of Santa Barbara from 1782 till 1847, a period of sixty-five years, show that, in that period, the births were 1,781, the deaths 441, and the marriages 298. These figures indicate six births on an average to one marriage, a ratio not to be equaled elsewhere.—*Hittell's Resources of California.*

SANTA MONICA.

SEVENTEEN miles west from Los Angeles is Santa Monica, the Newport of Southern California. By politeness of Mr. and Mrs. Bicknell, the editor of Semi-Tropic, family and friends, sisters, cousins and aunts, recently had a pleasant visit at the beach, where they were hospitably entertained by the host and hostess, who have one of the prettiest cottages in the place. Among the dishes served for our refreshment, and rarely enjoyed at this season (January) by our Eastern friends, were ripe tomatoes, freshly picked from vines which had been neglected for months. They were perfect, sweet and luscious. New potatoes were a staple article, though these we have also at Los Angeles.

It is a luxury to be lulled or rather roared to sleep by the thunder of the breakers on the beach, to rise before the sun and see the glad waves gleaming answer back his glowing smile of greeting; to tread the smooth, firm sand along the margin of the sea and breathe a tonic in the crisp salt breeze.

But we warn any who may be tempted in that direction, as we were, that an ocean bath at this season is not exactly the thing. Our experience has taught us that a plunge in the surf is much more enjoyable on a warm, August day, and there is no finer place for such pleasure than our summer resort, Santa Monica.

BAKER'S BLOCK.

This elegant structure was erected during the fall of 1878, by Col. R. S. Baker, after whom it was naturally named. It is a fitting monument to the builder's enterprise, public spirit, and faith in Southern California's metropolis.

The building is one hundred and eighty-six feet front, by one hundred and seven feet deep; the central tower one hundred and ten feet high, and the flanking towers eighty-five feet. The basement, extending under the entire building, is divided into six rooms, one of which would make a grand restaurant; and the space which can be utilized for this purpose exceeds that of any other similar rooms in the state, the ceiling being nearly thirteen feet high. The first floor, eighteen feet in heighth, contains six elegant store-rooms, all occupied, with a central hall one hundred by twenty-three feet. In this hall the floor is laid with English tiles, in an ingenious and variegated pattern, more beautiful and more expensive than ordinary mosaic. The building is supplied with water and gas throughout; everything being in the most modern and comfortable style. The store-rooms are occupied by prominent business firms.

B. F. Coulter,

The noted dry-goods man of Los Angeles, occupying the first room on the right of the block. Mr. Coulter has an enviable reputation for the scrupulous correctness of all representations made to his customers. He thoroughly understands the business, and his careful supervision of every department and personal selection of stock, at the East, enable him to offer his goods to his many customers at prices that will compete with the foremost houses of San Francisco.

Geo. D. Rowan,

The tea and coffee man, as he is called, is in the next room. His stock embraces everything to be found in a first-class grocery establishment, with prices always as low as, or lower, than any other concern in the business.

Ed. Germain

Does an extensive trade in General Commission Business throughout the entire southern part of this state. His branch houses in Arizona enable him to dispose of all kinds of produce, fruits, vegetables, etc., at a great advantage.
fore pay the very highest cash prices for all kinds of produce raised by the farmer. See him always before you sell and get his prices.

E. Martin & Co.

Have lately moved into their commodious rooms, and have in store one of the largest and finest stocks of Whiskies, Brandies and Wines in the state. The choicest articles ever kept in this southern country.

S. Norton

Comes next in the row, and is "noted" for the care in which he selects his stock of Dry Goods, Clothing and Notions, always buying from first hands at the very lowest prices, with economy in every department of his extensive business, enabling him to sell at prices that are in keeping with the dull times.

The Western Union Telegraph,

Appreciating their larger and extending business at this point, have taken the corner room and have one of the most complete and convenient offices on the Pacific Coast. R. R. Haines, Superintendent, is one of those splendid fellows that you like to meet in an official position; always makes you feel at home. The Company are for-

Up Stairs on the second floor are numerous offices, chief among them is that of

Brunson & Wells, Attorneys.

These gentlemen, standing at the head of their profession, have of course a large practice in all the courts. Their offices are said to be the finest appointed law offices in the United States, the crowning glory being their immense library of law books, considered among the most complete in the whole country.

The Semi-Tropic California

Occupy rooms No. 1-58 where they are always glad to see their friends, and invite all new comers to "drop in" and make themselves at home.

ROOT CROPS in SOUTHERN CALIFORNIA.

EVERYBODY is aware that soil and climate have combined in California to make it the best fruit-growing State in the Union. As a grain-producing State, California has but few equals; but it is in the production of root crops in which she stands pre-eminent in the United States.

Where irrigation is resorted to, on the mesa lands and foothills, root crops can be cultivated every month in the year, and will, therefore, yield two or three crops annually on the same field. If not harvested when ripe, they generally continue to grow, as no winter weather checks their growth, which is the cause that they reach sometimes a most wonderful size. The peculiarity of the climate undoubtedly has a great influence on the growth of root crops and vegetables generally; the regularly warm days are invariably followed by cool, if not cold, nights; in these nights the plant appears to gain in bulk, while during the warm, balmy days the plants develope, in fact, they do appear to digest in day time the nourishment they have absorbed during the cool nights.

Root crops are cultivated on almost every farm in Southern California, and yield an immense harvest in every kind of soil. The mesa or table land, as well as the foothills, has, as a general rule, a soil though extremely fertile, more or less mixed with gravel and sand. Here irrigation is resorted to, and with a good supply of water during the whole year, every farmer has the season in his own hand ,and can command it at will. But even without artificial irrigation, one crop of vegetables or roots can be obtained during any ordinary wet season on most land, except the most sandy.

The method employed by farmers to raise these crops varies more in California than in any State in America. After the land is plowed during the fall of the year, and the seed sowed, it will remain in the ground till the first rain comes, when it will sprout and grow during the whole winter. The more generally followed method though, is to wait for the first rain to come, which will sprout all the weed-seed, when the land is plowed, and all the weeds are destroyed at once, and the land brought into the best state of cultivation for receiving the seed. This makes the work of weeding these kinds of crops comparatively light and easy.

Where the crops are to be irrigated, the best way of planting is on ridges, placing, at given intervals, a water furrow. Through these furrows the water is conducted, and reaches the plants by what is commonly known as "seepage;" the water reaches the roots from below, but leaves the surface dry, which has the great advantage of preventing evaporation, of preventing weeds to grow, and not baking or caking the surface soil, and forming crusts. Irrigation will soon be more perfected to prevent the large waste of water; this once accomplished, the foothills and table or mesa land of Southern California can all be brought under cultivation, and will stand unrivaled in the world.

But as the larger part of all land in Southern California is what would properly be called "bottom land," this is the most important for general farming. Amongst this bottom land tracts are found or larger or smaller dimensions commonly known as "Alkali land," which will produce hardly anything, except beets and probably turnips. Beets on this kind of land grow of an immense size, and have been placed on exhibition weighing two hundred and fifty pounds, filling, not only an ordinary flour barrel, but showing more than half above them. Beets weighing from fifty to one hundred pounds are not at all looked upon with wonder, and are not considered extraordinary.

No attention has been given to crops which grow what might be called spontaneously. The cattle beet is left to themselves, the seed when put in the ground will grow naturally; as soon as some beets are large enough to be fed to cattle, they are pulled and have to make place for the smaller ones to grow more rapid, and in this very primitive but very natural way, the farmer harvests his root crop almost every day in the year, not being under the necessity to provide root cellars, and store them for winter use, as is the case in other parts of the United States, where root crops are grown for cattle feed. The facility with which these root crops can be produced in Southern California has naturally attracted the attention of men who are engaged in manufacturing sugar from beets.

In Europe, where the manufacture of sugar from beets is carried on on an immense scale, the growing of sugar beets is considered one of the most profitable branches of farming, and large tracts of land are especially put into condition for this crop. The land often sells for from two to four hundred dollars per acre, and not seldom are one hundred dollars more expended by tile draining and manuring to the acre, to bring it into good condition for producing root crops, especially sugar beets.

In the United States, where beet-sugar factories have been erected, they failed for want of raw material caused by the soil and climate not being naturally favorable for producing root crops, or the land not being put into a fit condition for the production of the same by the expenditure of larger sums of money than will buy the best land for that purpose in Southern California.

It is a well-known principle that the beet is an alkali plant, and will not grow where this ingredient is lacking in the soil. The danger that root crops will fail after a while is very remote, should the land, which at the present time contains no alkali in excess, and is for this reason considered free of alkali, by continuous cropping of roots, because too much exhausted of that ingredient, the top soil from land at present considered too strong alkali almost to produce any kind of crop, may be removed and used as a fertilizer for the exhausted soil. Thus is not only the much cropped land restored, but such land which is at present considered worthless on account of the excess of alkali will become the most valuable of all land in existence.

The result of this year's sugar-beet farming, in Los Angeles county, is watched by our farmers with the greatest interest, and as there is no difficulty in manufacturing sugar from sugar-beets, the solution of the question of a home supply of sugar lies in the production of the raw material—the sugar-beet; and in this, like in every other root crop, California is far ahead of any other locality in America.

But not only has the southern part of California the great advantage in soil and climate for the production of this valuable and much needed root, the peculiarity in which the country is settled gives it another great advantage to introduce the sugar industry. In no other State can be found settlements as in Southern California. These places or colonies, when first seen by the stranger, puzzle him greatly how to classify; neither the name of farms, villages or towns is applicable to them; they are a conglomeration of villas, where farming is carried on on a small, but very intense, scale. Through the whole county of Los Angeles no farmer exists who doubts that roots can be raised on the largest scale with a minimum of labor, and that the new sugar-works will have a large supply of raw material. If there is place for one such establishment, utilizing our most natural farming crop, there is place for twenty-five and more in Los Angeles county alone.

Beets raised on a small scale only, where all the work is done by hand, is hardly a fair criterion for a profitable crop. Farm work, of whatever nature, is mostly done by machinery, and it is in this that American farming excels; root cultivation ought to be no exception to this, and only when the whole work to be performed in producing root crops will be done by machinery, the advantage and profit in these crops will be apparent.

One tract of sugar-beets is now being planted of an extent of over three hundred acres; the work on this tract will be done by machinery, with the single exception of thinning them so as to stand single in a hill.

Farmers who consider themselves progressive at all, should make a trial on a limited scale on their farms, in order to ascertain the sugar quality of the beet, and as it is the best crop to feed to any kind of stock, and has at least double the feeding value of any other kind of roots, they should try for themselves, in order to be prepared another year for the most profitable root crop which can be raised in Southern California, especially in Los Angeles county.

A SPECIMEN number of the SEMI-TROPIC CALIFORNIA will be sent to any address supplied by our readers. Of course they will only make this request in cases where such specimens will be likely to do good.

Agriculture.

LOS ANGELES AT THE EXPOSITION.

By John H. Shields.

It has been suspected that barley raised on the oceanward side of Los Angeles county must, of course, be rather dark, but the sample at the Exposition of 1879, grown on Centinela, was light enough for any purpose; F. B. Clark, exhibitor. It is not generally known that the Mediterranean Sweet has, more than almost any other orange, the habit of being on one stock a dwarf, and on another, a large tree; on one stock bearing small fruit, on another, large fruit. If any one has seen only the small fruit of this variety, and doubts the capacity of the variety by a change of stock, soil or treatment to produce fruit of great size, it is only necessary to visit the tree at Tustin, which produced the Mediterranean Sweet orange exhibited, 12⅜ inches in girth, and in appearance surpassingly beautiful; G. B. Lyons; exhibitor. Mr. Lyons has an orange grove near Tustin.

SANTA ANA.

Six varieties of white grapes, one of which is a table grape; twelve varieties of handsome table grapes, among which were the Sweet Water, Black Morocco, Parsley Leaf, Malvoise, Faritzago and Flame Tokay, a berry of the Tokay war, 3½ inches in girth; all exhibited by Mrs. P. N. Stafford. A fine pumpkin; W. T. Chapman, exhibitor. White prolific field corn, five to ten ears to the stalk, raised without irrigation, on land where the nearest water was twenty feet below the surface; A. J. Spencer, exhibitor.

Black seed cotton, stems numerous, strong, well leaved, and profusely bolled, bolls good size, sky openers, staple densely packed, not expanding in proportion to the opening of the hull, lobes cling too lightly along the sutures, seeming incapacity of the textile lobes to expand into the snowy masses of gossamer staple, which drop out of the hull at the shake of the breeze or the tap of rain-drops, if the cotton-picker come after the nick of time. The day breezes of Santa Ana are too delightfully bracing, and the summer nights too seraphic with crisp, imported October, for hot tempered cotton. But what the exhibitor, Geo. W. McDowell, misses in gain by cotton, he gets in vigor by day, and comfort by night. Nearer to Arizona is the mercury for profitable cotton culture. But for all this, Mr. McDowell's exhibit of cotton was to many visitors highly interesting, and to every one it imparted the important fact that King Cotton, though not a thorough stapler on the ocean border of California, is a vigorous stemmer, leafer and boller. The facts thus presented encouragingly indicate that the hot days and warm nights twenty miles farther inland would add the perfecting quality of expansiveness in the staple.

WESTMINSTER.

Seventeen plates, twelve varieties of apples, notable among which were a Roxbury Russet, one foot in girth; a yellow Belle Fleur, 13 inches in girth; Esopus Spitzenberg, 11½ inches; also the black apple and the T. C. King, two unknown varieties, and many other known varieties; a quince, 14¼ inches in girth; all by Josiah McKoy, exhibitor.

ANAHEIM.

Miles Bros. exhibited white flour corn about as soft at maturity as Cuzco corn; can be chewed in its natural state with ease by persons. Laid on a plate long after full maturity, and placed on the dinner table, so much does this exquisite flour corn resemble the most delicate roasting ears, that vision unaided by the touch would not dispel the illusion. The ears were as much as 9½ inches long, 5½ inches greatest girth, and 52 grains to the longitudinal row. A fine display of leather was made by the Anaheim tannery. With what exultation must the Southern Californian realize that manufacturing industries are having an auspicious dawn in our region.

NORWALK.

Twelve varieties of carrots; maximum, 15 inches long, 14 inches in girth; ruta baga; mangel wurtzels; white corn; all by D. S. Washburne. Snow Flake Irish potatoes; yellow corn; Baden's white prolific flour corn, ten grains of which in 1878 produced twenty pounds in 1879; seventy-five bushels of it were yielded to the acre; yields three ears to the stalk, prospers with three or four stalks to the hill, and does not sucker badly; white corn meal; all by S. W. Gillett, exhibitor.

NEW RIVER.

A handsome display of apples. Consisted of the yellow Belle Fleur, 13 inches in girth, the Ben Davis, Winesap, Golden Russet, Nicajack and Limberture; T. J. Kern, exhibitor. Yellow Belle Fleur, 13 inches in girth; Ben Davis, 10 inches; Rhode Island Greening, 13 inches; Cayuga Red Streak, 13 inches; Roxbury Russet, 11 inches; Smith's Cider, 13¼ inches; Winesap, and other varieties; a quince 13½ inches in girth; fine European grapes; all by M. J. McGaugh, exhibitor.

DOWNEY AND VICINITY.

A display of forty plates, among which were the the Fall Pippin, 13½ inches in girth, and other splendid specimens; Geo. Harter, exhibitor. For variety, beauty and the various excellencies of the apple, Mr. Harter's display would have elicited high praise in the regions most favorable to the apple; in Oregon, Kansas, Michigan, or New England. Corn, the ears 15 inches long; John Martin, exhibitor. Yellow corn, 10½ inches in girth; very choice peanuts; F. A. Cauffman, exhibitor. Three varieties of Irish potatoes, the white, the red, and the blue; sweet potatoes; huge pumpkins, without irrigation; all by S. C. Hammer, exhibitor. Sweet potatoes, E. Barnet, exhibitor. Fine red Brazilian artichokes, by Thos. Isbell. This valuable economic tuber, barely beginning to take position among the root crops of Los Angeles, deserves a fair trial. It yields largely, and is another auxiliary in the production of hogs worthy of mention along with beets, pumpkins and alfalfa. A display of butter, apparently equal to the "Philadelphia Print," F. J. Barretto, exhibitor. At some future time, and somewhere, I shall have something to say of Mr. Barretto's herd of Jerseys, whence came the butter.

FLORENCE.

Bale of barley hay, D. H. Turner exhibitor. Some one suggested that this bale of hay was so firmly compressed that one might bore an augur hole into it, and pick up the chips. There is probably less excess in the suggestion that the augur hole would stand alone; that is, if no one rashly pulled the hole out of the bale. But Governor Downey made the valuable suggestion that the hay press might be used as a wool press. The bale turned out by this press is 18x24x40 inches, weight 220 pounds. Before the press relaxes, the dimensions are 18x24x34. The released bale rebounds 6 inches lengthwise, but next to nothing in width or thickness. A Los Angeles purchaser of some of these diminutive bales, swapped them off for large bales, pound for pound. He wanted not only the worth of his money, but the size of it. The horse, too, might have wanted, not only the weight, but the size of a heartsome ration. An imaginative horse might weaken on thin cake forkings of fodder. But the chemically meditating horse might strengthen on his realized convictions that the tight little, deft little, fresh little, bright little, rich little bale, hermetically sealed, as it were, would not waste its sweetness on the air. A full car load of hay thus baled can be easily put into a car. Hay thus compressed ought, therefore, to ship nearly as cheaply as grain by land or by water. The commercial province for Los Angeles barley and alfalfa hay ought, in this case, to expand over the Pacific islands, and over the vast, arid regions on the Pacific slope of the United States and Mexico. I have seen loosely baled northern hay aboard ship at Key West, on the way to a military post on Pease Creek, in grassy evergreen Florida, in time of peace. All grass is not hay grass; hence, hay to Florida. Southern California is a hay belt, tonguing down between an ocean on one side, in which are hay-laying islands, and on the other, regions of plentiful gold and silver, and meagre hay-yielding possibilities. If the hay-yielding Ohio valley had thrust such a tongue through grass-poor and hay-lorn Dixie, hay trains would have had a convenient and a prolific base of tonnage. Equally convenient, however, and on account of year-long growth, about eight hundred per cent. more prolific of hay-yielding material, is the California grassy tongue. And while the southern tip of the Ohio tongue would have rested on the Gulf beach, with sharks and whales

about the most extensive customers in front, the California tongue rests on the border, not of the Gulf of Mexico, but of dry land, arid, gold-rich, silver-rich, tropically-rich, hay-poor Mexico. The indigenous grasses of arid America are not suitable for merchantable hay. The irrigable lands are not, in some portions, adequate to the production of all else that will be demanded of them, and leave sufficient space for the production of adequate supplies of merchantable hay. In other regions, the irrigable lands may be utilized more profitably for semi-tropical or tropical products. The extension of the American system of railways over the Pacific slope, north of Mexico, now progressing, to be followed by an extension of railways into Mexico, will unlock the mineral treasures of those regions, and create a demand for hay. Direct trade with the Hawaiian and other islands is a mere question of time. The reduction of hay to that ratio of weight to bulk, which will assure its transportation as favorably classed tonnage, and not as bulkage, will so expand the commercial province accessible to Los Angeles hay, that for the first time a satisfactory answer will begin to accrue to the hitherto vainly reiterated question, as to what profitable use to make of all the hay, for the production of which the capacities of our soil and climate, and the inclinations of the farmers, are ready, over and above the other present and prospective profitable uses of hay.

Returning to the Florence exhibits. Tomatoes 10½ inches in girth; sweet corn, kidney bush beans in the pod, peanuts, Hero pea; Marcus Surrat, exhibitor. Yellow corn of notable dimensions; Egyptian corn, 10 feet high, and heavily headed; Geo. C. Frame, exhibitor; a pumpkin 7 feet in girth, 165 pounds weight; E. W. Thaxter, exhibitor; large peanuts; Edwin C. Russell, exhibitor; pop-corn, 7¾ inches long; choice specimen of that cereal flint, which blooms into snowy curls at the touch of fire; Charley Tufts, exhibitor. That was a pop-corn burst, not a burst of metaphor. A pumpkin, 8 feet 2 inches girth, 154 pounds; a sugar-beet 4 feet in girth, magnified at the expense of sugar; all exhibited by the Ramseur Bros. Greatly to the credit of Florence and of Southern California was the display of 28 varieties of apples, among which were the Rome Beauty; the Golden Russet, 11½ inches in girth; Gloria Mundi, 15½ inches; the Western Beauty, 14¾ inches; the Baldwin, 12½ inches; the Winesap, 12½ inches; the Roxbury Russet, 11½ inches; the White Pippin, so exquisitely tinted that the artist searcher for model tints, might have eagerly made a copy; B. W. Mower, exhibitor. Display of apples, among which was a fine Rhode Island Greening; R. B. Russell, exhibitor. Green Meadows, adjacent to Florence, began its public history as the congenial home of the apple, by going into the Exposition with superb specimens of the White Winter Pearmain, one of which was 14 inches in girth; the Red Streak. And this is not all of Green Meadows by many a Pomo's glimpse of emerald, Crimson Shimmer, and Golden Gleam; J. K. Stump, exhibitor.

The cider made in the Exposition building, daily, during the fair, was the product of apples from the orchard of Mr. B. W. Mower, of Florence. No exhibit was so much tested as the Mower cider. Favorable award of opinion followed test, and test followed award indefinitely, imbibulously, copiously. Florence exhibited a single root of alfalfa with 129 stalks, average length 6 feet. Scores of young sprouts had appeared on the same root.

LOS ANGELES CITY AND VICINITY.

Mrs. Dr. H. Shaw, of San Pedro street, directed the tasteful arrangement, on glass stands, of her extensive display of orchard products. There was a display of apples which that lady's relatives in Philadelphia, her old home, would not see much, if at all, surpassed, across in Jersey. Among the rest, a yellow Belle Fleur nearly one foot in girth; a Roxbury russet 11¼ inches; pound-pippin 11 inches; Baldwin 11¾ inches; Spitzenberg 11¼ inches. Also a display of citrus fruits of the crop of 1878-1879, among which was an orange 11¾ inches in girth; a lime 6 inches in girth. There was a large glass globe containing Central American oranges of 1879, preserved in alcohol. The glass globe was surmounted by a pyramid of large beautiful oranges of the crop of 1878-1879, from Mrs. Shaw's grove. The Los Angeles oranges, in the second year of their age, and with nothing more preservative than a free swing on the branch, in the cool, pure, antiseptic ocean breeze, up to the day of picking, just before the October exposition, were as perfectly sound and indefinite percentages more natural than the Central American citrus seventy-miners, swimming in alcohol. In an adjacent display were ripe Los Angeles oranges of the crop of 1879-1880. There were also green oranges of the crop of 1879-1880. Here, then, in October, 1879, were oranges of the crop of 1878-1879, just from the tree; ripe oranges of the crop of 1879-1880, and green oranges of the crop of 1879-1880. The oranges of the crop of 1879-1880 were ripe and pleasant to the taste. Those of 1878-1879, which had survived mere ripeness fully half a year, were also pleasant to the taste. Their over-ripeness was not a spoiled one, but a ripeness refined by long indulgence, after weaning-time, and after maturity, in sunshine and the cordials of mother tree.

The displays at the same fair, of oranges of crops named as the crops of the fractions of three years, somewhat further complicated by the blooming times, excited a query, which was t'other sort of an inquiry. A bystander, to whom all sorts of Greek is as plain as that naught to naught is nothing, hastily answered, making an off-hand analysis of the entire citrus situation. But he got himself entangled in fractions, lappings, seasons, times, half times, quarter times, sometimes, no times; buds, blooms, and buds and blooms again; greenest, greener, green; ripe, riper, ripest; over-ripe, over-riper, over-ripest; superannuated, superannuateder, superannuatedest, and not much superannuated. The expansion of logic was like a houseful and a yardful and could not get a thimbleful. A little quiet meditation, and its progeny, a few chosen words, would have revealed the natural openings and partings in the citrus riddle. In this better way an expert afterwards explained the case. In the same display were English walnuts from Mrs. Shaw's grove, large and light colored.

Early amber cane 8 feet high, raised without irrigation; Charles McMaster, Vernon suburb, exhibitor. Mr. McMaster, I believe, introduced early amber cane into this region. It yields enormous tonnage, and the expressed juice is sweet enough for a beverage. General Le Duc, and others, predict a leading position for early amber in the future sugar industry of the United States. "Well, then," once said a landholder of Los Angeles, "is the railroad you speak of to run there? it is well; for I have land there. Is it to run yonder or elsewhere? it is well; for I have land at all the suitable places for a railroad." Is it early Amber cane that is to yield our sugar? It is well; for that plant is nowhere more at home than in Los Angeles. Is it the cane of Indian corn? Behold the corn cane brakes of our county, aspiring to rival the Asian black bamboo cane brake for height, and possibly will thus rival that variety of bamboo, when farmers develop to stalk as a point, instead of to grain as hitherto. Is it the sugar beet? Enough said. Is it tropical sugar cane? Why, Montgomery Tyler, of the Ranchito, threatens to raise it for his hogs; and Dr. Fulton, of the Sulphur Wells, and T. R. Passons, near Downey, exhibited Louisiana cane at the exposition, which, with the Mexican cane exhibited by Mr. Tyler, entered into the composition of the huge cane column at the Exposition, at the foot of which Ernest H. Gennert presided over cane, sugar beets, dried beets, and beet sugar. Mr. Gennert was about as proud of the cane as of the beets. Is it watermelons for syrup, or sweet potatoes or pumpkins for sugar? Let us stop this catalogue. It is growing monotonous. Like the ubiquitous landed estate, ready to catch the railroad wherever it might run, Los Angeles is ready to catch the sugar boom, now fairly rising, whether its bait be early amber, or tropical cane, or corn-stalks, or beets, or all four of the plants. If the sugar boom is to boom on beets, corn-stalks, or early amber cane, Los Angeles county is prodigiously liable to an attack of the boom; if it be tropical sugar cane, then only moderately liable.

Oats, rye, barley, and wheat; J. L. Lanterman, exhibitor. It will be remembered that Mr. Lanterman is always ready for the Annual Exposition with valuable farm products of creditable grade. Figs and ice bananas; E. K. Green, exhibitor. Sweet potatoes; S. Lutweeley, Los Angeles, exhibitor. Oats fair, wheat good, and muskmelons a delicacy; F. R. Shaughler, West Los Angeles, exhibitor. Beautiful

flowers, tastefully arranged in bouquets; Adolph Straus, exhibitor. White beans and handsome watermelons; Mrs. F. C. Homes, exhibitor. Pineapples in pots; exhibitor's name unknown. May have been Mr. C. E. White. Champion wheat, sample of 325 lbs. from one fourth of one acre; A. Southworth La Dow, exhibitor. Winter Nellis pear, 11½ inches in girth; white corn 10½ inches in girth; fine apples and peaches; J. N. Cooper, exhibitor. Display of apples, among which were the winesap; the Smith's cider; the white winter pearmain; the fall pippin; the Baldwin; Japanese persimmon, ordinary and acorn form; pomegranates. White Muscat grapes 3¼ inches in girth; all irrigated by the Asbestine sub-irrigation method; M. P. Grove, exhibitor. Peaches good for October, and not bad for August; irrigated by the Asbestine sub-irrigation method.

(To be continued in our next.)

FULTON WELLS.

ONE of the new enterprises of Los Angeles county which has not received that attention which its merits demand, is the place which heads this article, the Sanitarium established by Dr. J. E. Fulton, known as "Fulton Wells." These wells are situated near the Los Angeles and Anaheim railroad, on the table lands thirteen miles from the coast, and two miles from the foot hills, and in full view of the snow-covered Coast Range, which rises several thousand feet above the hills. The climate is pleasant, both winter and summer; but for a winter resort, it is unequaled, being the only mineral water of any note in the southern part of the state, and possesses ingredients which give a rare combination of medicinal qualities. The analysis of these waters shows all of the important elements usually contained in mineral springs, and where most of them have mere traces, are here contained in such quantities as to have a decided effect. Iron, sulphur, magnesia, potash, soda and iodine, held in solution by a large quantity of carbonic and hydrogen gasses, which sparkle and boil like a soda fount, leaving quantities of these substances in deposit where the waters run from the wells.

Another advantage of these wells, unlike the most of mineral springs, is that the waters flow from a depth of 350 feet, and is thus uninfluenced by winter rains, which with the mild sunny climate, makes it the most desirable of any place in the state for a winter resort.

A new hotel with good accommodations, hot baths, reading and billiard rooms, daily mail, bright sunshine, fine mountain views, and the meadow-like plain carpeted with green, for riding or strolling, are some of the attractions of the place.

Dr. Fulton, an experienced practitioner of medicine, proposes to give his services gratis to the guests who may need medical attention, as well as directions for the proper use of the waters.

Having been a guest at these wells for several weeks, and observing the effects of the waters, I think that I can safely say that they compare favorably with any with which I am acquainted, for all diseases of the secretory system, such as those of the liver and kidneys, and complications arising from malarial affections. It is also useful for cutaneous diseases, as well as rheumatic and dyspeptic affections.

The locality is free from malaria, and with the tonic mountain air, and healthful sea breeze, there is no place of superior advantages to the invalid, or a more quiet, restful retreat for the overworked.

E. R. VERNON, M. D.

December 26, 1879.

VICK'S FLORAL GUIDE comes to us in a new and attractive cover, its frontispiece a beautiful chromo bouquet of everlastings, and its contents replete with good things that delight the florist. It is accompanied by the *Monthly Magazine*, also having a handsome frontispiece of verbenas, and throughout fully sustaining the publisher's world-wide reputation as the Prince of Florists. We are glad to see our own California flowers so generously noticed, and gratefully accept the implied concession that ours is, *par excellence*, the State of perpetual.

F. P. RAMIREZ,

Attorney at Law,

72 TEMPLE BLOCK, Los Angeles.

HARNESS, SADDLES, LEATHER, ETC.

Call, for the best quality of these goods, on

H. HEINCH.

Cor. Los Angeles and Cond Sts.

PURE BRED BROWN LEGHORN'S

EGGS FOR HATCHING.

$1.50 for Thirteen.

Warranted fresh and fertile, true to name and from choice stock.

CHAS. P. JILLSON.

Orders can be left with me at

DOTTER & BRADLEY'S,

84 Main St.

THE LARGEST, OLDEST AND BEST.

Fifty-two pages monthly.

AMERICAN BEE JOURNAL

$1.50 a year; Sample copy, 10 cents.

THOMAS G. NEWMAN & SON,

972 and 974 West Madison St., Chicago

THE

Pico House.

THE ONLY

FIRST CLASS HOTEL

IN LOS ANGELES.

JOHN WHITNEY,

MANAGER.

S. P. R. R.

Commencing Thursday, Nov. 6, 1879,

AND UNTIL FURTHER NOTICE

TRAINS WILL LEAVE

LOS ANGELES

AS FOLLOWS:

9.30 A. M.—Daily—Via L. A. & I. R. R. Local Passenger Train to "Santa Monica." (Arrives 8.30 A. M.).

10.35 A. M.—Daily—Local Passenger Train to "Wilmington." (Arrives 9.10 P. M.).

11.10 A. M.—Daily—"San Francisco" Through freight and Third-class Accommodation Train. (Arrives 12.30 P. M.)

1.15 P. M.—Daily—"San Francisco" Express Train connecting at Lathrop with the Atlantic Express Train of the Central Pacific Railroad. (Arrives 1.55 P. M.)

2.25 P. M.—Daily—"Maricopa Express" connecting at Yuma with Colorado River steamers, and with daily trains of the Southern Pacific railroad of Arizona for Maricopa. (Daily stages for Phoenix and Prescott, and for Casa Grande (187 miles east from Yuma) and East of Tucson. Daily stages for Florence and Tucson. (Arrives 10.15 A. M.)

2.45 P. M.—Daily—Local Passenger Train to "Wilmington." (Arrives 3.30 P. M.)

4.00 P. M.—Daily—Local Passenger Train to "Santa Ana," connecting with stages for San Diego. (Arrives 8.30 A. M.)

4.10 P. M.—Daily—Via L. A. & I. R. R. Local Passenger Train to "Santa Monica." (Arrives 5.30 P. M.)

TICKET OFFICES.

Commercial St. R. R. Depot

Depot Office S. P. R. R.

T. H. GOODMAN,

General Passenger and Ticket Agent.

A. N. TOWNE, General Supt.

E. E. HEWITT, Asst. Supt., Los Angeles.

SUB-IRRIGATION!

The attention of Orchardists, and those planting Orange or Lemon Groves, Small Fruits, etc., is invited to our system of Sub-Irrigation as practically tested in this city, by which fully three-fourths the water ordinarily used and nearly all the labor of irrigation is saved, the deep rooting and healthy growth of trees insured, and the ground prevented from baking. The manufacture of Reservoirs, Irrigating, Water and Sewer Pipe a specialty.

ASBESTINE STONE CO.,

Household.

HOME.

SO much has been written on the subject of home adornments and home economy that more would seem superfluous were there not always new homes and young housewives. We all know from observation, and some by sad experience, that nothing so annoys the husband and father, on his return from a hard day's work, as an illy prepared dinner and an untidy, cheerless sitting-room. And nothing brightens faces and hearts like a warm, comfortable, home-furnished living-room. Here the woman's taste and genius should be chiefly exercised. Let the upholsterer (I had nearly said undertaker) be the architect of the parlor furnishing, if necessary, and let the parlor be shut up, dark, sunless, flyless, damp and horrible, if it *must* be kept as a place in which to immure luckless visitors. But flood the living-room with sunshine in day time and lamp-light at night. Let it be filled with the handiwork of mother, daughter and son—mats, rugs, brackets and pockets, some choice pictures, plenty of books and games. Above all, let the cheerful example of the elders inspire within the youthful members of the household a love of order, mutual preferment and willing self-sacrifice. For, depend upon it, mothers and fathers, in this family sitting-room, more than anywhere else, are molded your child's aspirations, tastes and future habits.

SENDING FLOWERS EAST.—Flowers can be sent across the continent by taking a large potato, cutting it in two, "scooping" out most of the pulp, putting in the flower and joining the potato again. The moisture of the potato keeps the flower fresh during the journey. Orange and other blossoms can be sent by sticking the twig into a potato and boxing.

ORANGE JELLY.—Soak one box of Cox's gelatine in a pint of cold water for an hour, then add a pint of boiling water, a pint of orange juice, and a pound of white sugar; bring to the boiling point, strain through a flannel bag, and pour into moulds.

TOAST.—Bread for toast should be sweet, light, and not too dry. Cut slices half an inch thick, move around over a brisk fire, so as to toast it "evenly;" keep only so near the coals that when both sides are nicely browned, the piece will be heated through. Cover with a close lid or towel.

TO FRY FISH.—Cut the fish in pieces or leave it whole, according to size; wipe dry, and roll in powdered cracker or bread crumbs; dip into well-beaten egg, and again roll in the cracker dust or crumbs. Have the fat hot, and drop the pieces in; brown, but do not burn; lift, and lay them on thick paper to absorb the fat. In this way fish is not so indigestible as when saturated with grease, and forms a nutritious dish.

BE AN INDEPENDENT FREEHOLDER.—Almost every person indulges the hope of some day becoming a freeholder, and owning a piece of God's foot-stool, be it ever so small, that he can call his own and home! They feel and understand that there is an independence in the possession of land that no other property secures. It is really the basis of all security. The prosperity of the world comes from the ground. The owner of ever so small a piece of land possesses a home right of which no earthly power can dispossess him, so long as he acts honorably with his fellow man, and obeys the laws of his country. A better opportunity than the present will never offer for securing a home in Southern California at the lowest price, and on the most favorable terms.

PRESERVING THE NATURAL COLORS OF FLOWERS.—According to the *Breslauer Gewerbe Zeitung*, the natural colors of flowers and plants intended for herbaria may be preserved by dipping them from time to time in a boiling solution of eight grains of salicylic acid, in three-quarters of a pint of water, afterwards carefully drying them between sheets of blotting-paper.—*Gardener's Monthly.*

"AMAZING GRACE."

The following is vouched for by one of the most reliable of Philadelphia divines:

A young clergyman having agreed to supply the pulpit of an older brother absent from home, escorted to church the daughter of the pastor, and after seeing her safely in her father's pew, ascended to the pulpit, unconscious that his natural attention to the young lady was sufficient to excite lively imaginations and inquiries in the audience.

Upon reading the hymn to be sung, the young clergyman was surprised to perceive evident efforts in the congregation to suppress laughter. The daughter of his friend possessed the mellifluous name of Grace, and, all unsuspicious of that fact, he had chosen the hymn beginning with the words "Amazing grace," and proceeding with:

"'Twas grace that taught my heart to fear,
And grace my fears relieved:
How precious did that grace appear
The hour I first believed!

"Through many dangers, toils and snares,
I have already come;
'Tis *grace* has brought me safe thus far,
And *grace* will lead me home!"

—*Harper's Magazine for January.*

D. M. FERRY'S SEED CATALOGUE comes to us clothed in gorgeousness and glimpses of good things. Both title page and back cover are embellished with chromo designs, and throughout the book one is surprised at short intervals with handsome colored engravings of vegetables and blooms. A group of pansies is especially lovely in its rich dark colorings, while a water-melon with a slice cut, tempts the thirsty palate. The book is a gem in itself, and after repeated trials and successes with these seeds, we take pleasure in testifying to their reliability and recommending them to the public.

HESPERIA.

A WINTER-DAY IDYL OF LOS ANGELES VALLEY.

Is restful, tender, rapt repose,
Sweet Nature softly dreaming lies;
Afar the slumbering Ocean glows,
Above, the snowy heights disclose
Their glittering banners in the skies.
Soft at their everlasting feet,
In green and gold, with incense sweet,
Queen of the bright Hesperian lands;
In royal splendor lovelier far
Than man's vain glittering pageants are,
The gracious Orange proudly stands.

How grandly lift the walls of gray
To guard the dreamy, sighing Vale!
On shadowy pinions, far away,
The vulture circles o'er his prey,
Where clings the dizzy mountain trail.
How soft the purple shadows sleep
On every cloud-kissed solemn steep!
Sweet fairy Vale! O, not more dear
To tender thought and lover's dream,
To muse's song and poet's theme,
The dreamy vale of sweet Cashmere!

Thy gaze o'erswoops the western wave,
Where white wings cleave their trackless way;
And softly come thy feet to lave
The crystal tides from far Cathay.
O, scarce might Adam's soul regret,
Had here his feet a refuge found!
And here might sighing Eve forget,
Again with silken fetters bound.

ALBERT F. KERCHEVAL.

POLONIUS TO HIS SON.

Look thou character. Give thy thought no tongue
Nor any unapportioned thought his act.
Be thou familiar, but by no means vulgar.
The friends thou hast, and their adoption tried,
Grapple them to thy soul with hooks of steel.
But do not dull thy palm with entertainment
Of each new-hatched, unfledged comrade.
Beware
Of entrance to a quarrel; but being in,
Bear it that the opposer may beware of thee.
Give every man thine ear, but few thy voice;
Take each man's censure, but reserve thy judgment.
Costly thy habit as thy purse can buy,
But not expressed in fancy, rich not gaudy,
For the apparel oft proclaims the man;
And they in France, of the best rank and station,
Are most select and generous; chief in that.
Neither a borrower nor a lender be;
For loan oft loses both itself and friend;
And borrowing dulls the edge of husbandry.
This above all—to thine ownself be true;
And it must follow, as the night the day,
Thou canst not then be false to any man.

THE FARMER'S LIFE.—There is a quiet about the life of a farmer and a hope of a serene old age, that no other business or profession can promise. A professional man is doomed sometime to feel that his powers are waning. He is doomed to see younger and stronger men pass him in the race of life. He looks forward to an old age of intellectual mediocrity. He will be last where once he was first. But the farmer goes, as it were, into partnership with trees and flowers; he breathes the sweet air of the fields. There is no constant and frightful strain upon his mind. His nights are filled with sleep and rest. He watches his flocks and herds as they feed upon the green and hilly slopes. He can sit "beneath his vine and fig-tree with none to molest or make him afraid." He can look out upon his blooming and fruit-ladened orchards. He can walk along his flower-bordered paths and sit under the shade and ornamental trees planted in youth, and plant others for the children yet to come.

Horticulture.

HORTICULTURIST.

THE SEMI-TROPIC CALIFORNIA, when originally started, did not intend to have anything to do with agriculture or horticulture, but a force of circumstances compels us to change our original intention. We will make the SEMI-TROPIC CALIFORNIA the organ of the agricultural and horticultural people of Semi-Tropic California, employing the best talent in the country, and thoroughly illustrating all subjects. If the people want such a paper, they can make it manifest by sending the price of subscription to us.

NOTES ON VINICULTURE.

From articles by L. J. Rose, in a local paper, we cull the following interesting items:

A level piece of land should be selected, as it better retains moisture, and the soil will not be washed out by irrigation as on a hillside. If a slope is used, let it be a northern rather than southern, for the warm climate renders an excess of sunshine unnecessary, and grapes may have until December to ripen, if they do not ripen earlier.

MOST SUITABLE SOIL.

Some diversity of opinion seems to exist on this point. Different soils are required by different varieties of grapes. Some general facts are safe to accept for all. A finely divided soil is easily worked and will absorb and retain moisture. It is better adapted, therefore, to all productions requiring cultivation. Grape-vines require cultivation, of course, especially for the first three years after planting. They should be carefully cultivated during the entire summer the first year, with or without irrigation. Grass and weeds should be most carefully excluded.

HOW TO PLANT CUTTINGS.

Plants rooted in nursery the first year can be more easily taken care of, watered and made to grow, and can be transplanted with small per cent. of loss. On the other hand, if planted at once in vineyard, there is a gain in size, the latter having as much as six months the advantage of the former. The expenses are perhaps less to those planting in nursery. Yet, all things considered, it is thought best to plant at once in vineyard, sinking the plants not more than twelve or fifteen inches deep. Deeper planting is with good reasons condemned, and a crowbar is preferred to a spade to plant with. The soil must be carefully pressed around the plant, from the very bottom upward. The plants should be soaked in water a few days before planting. Six feet each way is a good distance apart for vines for wine-making; for raisin culture they should be wider apart.

CAN GRAPES BE GROWN WITHOUT IRRIGATION?

This can be answered with certainty, yes. A soil which with rain will grow anything, will, without irrigation, support grape-vines and produce grapes. An instance is given, in the writer's own experience of twenty acres, above the irrigation ditch, on dry soil, now covered with vines of ten years' growth, and producing fair crops since the second year. The varieties here receiving so severe and conclusive a test, are the Blaue Elba, Zinfandel and Berger. Water is less necessary during the first two years than when the vine is heavily leafed and bearing. Thorough cultivation is the main consideration.

IS IRRIGATION BENEFICIAL?

On the other hand, it is of course obvious that the growth of any plant will be increased by the proper application of water. During a dry season irrigation will insure a crop which otherwise would be a failure. But it should be judiciously applied; for an excess of water makes the grape watery, insipid, and inferior for wine. For the first few years of growth irrigation is of no utility; after that, it is well to be within reach of the ditch.

GRAPE SHOT.

FROM LOS ANGELES.

Los Angeles county is a vast vineyard.

The White Muscat is the grape for raisins.

The first wine was shipped from this county in 1849.

There are now 5,172,000 bearing vines in Los Angeles county; in the large vineyards, and 1,200,000 planted during the present winter.

Our wine yield from a half crop of grapes was last year (1879) 1,072,000 gallons.

The Franciscan Fathers manufactured wine at San Gabriel one hundred years ago.

The Mission is the popular standard grape—sweet, juicy, delicious.

L. J. Rose, of Sunny Slope, near San Gabriel, manufactured last year 5,000,000 pounds of grapes into wine and brandy.

Since the rains have assured full crops, a yield of 2,250,000 gallons of wine and brandy is expected for this year.

The Reisling, Blaue Elba, Zinfandel, Black Malvoisie have been successfully cultivated by our best grape growers.

L. J. Rose has the most complete wine manufactory in the United States, being able to convert daily 200,000 pounds of grapes into wine and brandy.

Smaller vintners can dispose of their crops to large wine makers more profitably than they can manufacture their own wine.

L. J. Rose has 500,000 bearing vines, the largest vineyard in the country.

Los Angeles county is destined to become one of the richest, as it is now one of the most beautiful gardens on the face of the globe.

FIGS.—There is no fruit known which can be propagated so easily, and that will produce larger results in so short a time as the fig. A branch or cutting placed in the ground any time in this month is certain to grow, and with any sort of care will produce a good crop the third year.

LOS ANGELES PRIVATE EDUCATIONAL INSTITUTIONS.

WHILE Los Angeles boasts of excellent public schools, and is unsurpassed in this respect by any city in the State, outside of the metropolis, its private schools are equally meritorious; and if they continue to increase in popularity as rapidly in the future as they have in the past, we may justly hope that ere long Los Angeles may become a great educational center.

LOS ANGELES ACADEMY.

The Los Angeles Academy was organized in 1876, as a private school by Rev. O. S. Frambes and wife; but at the session of the Methodist Conference held that year, it was adopted as their school, and Professor Frambes was appointed principal. The course of study is thorough, and sufficient to meet the ordinary demands made by society in general upon the young ladies and gentlemen who shall go out from the institution. The teachers in the various departments have a high reputation for their efficiency and ability, and the institution has become a favorite with all classes of our citizens.

ST. VINCENT'S COLLEGE.

This institution is under the control of the Catholic Church, and the faculty is composed of the Fathers of the Congregation of the Mission. It is open to all over the age of ten years, who are competent to enter the primary course, and who come with respectable recommendations. The course of studies embraces a full course of English and classical literature, mathematics, ancient and modern languages, and a commercial department. It is an excellent school, and is situated in a convenient and healthy location.

OUR BUSINESS COLLEGE.

The Los Angeles Business College is in charge of two experienced gentlemen, Messrs. La Fetra and Julian; the former a graduate and subsequently assistant teacher of the Washington Business College; the latter an accountant and teacher for more than twenty years. The benefits to be derived from a thorough business education are incalculable, and institutions of this nature have become very popular throughout the United States. A diploma from a well-known business college is a good letter of recommendation to a young man when applying for a situation, and we are glad that we have such an excellent institution in our midst. We advise those of our citizens who have sons to educate to call and inspect the school when in session, and we are convinced that they will be well satisfied with its practical workings and superior advantages for imparting essential information.

WE have received from Mrs E. J. C. Kewen, of San Gabriel, a cluster of the largest oranges we have ever seen. They measured fifteen and a quarter inches in circumference and were grown on young seedling trees.

GOOD TIMES

ANAHEIM, January 10, 1880.

SEMI-TROPIC CAL.—After three years of hard times and depression, the present, which promises to usher in the returning wave of prosperity, brings with it abundant rains, and a certainty of a successful season. Every one seems happy in the favorable prospects for the future good crops in the coming season are assured, and with the good crops, the extension of railroads into Arizona, will, with the consequent development of the immensely rich and extensive mines there, and the employment of a large body of miners, furnish us, in the near future, with a market for all that we can produce. Then this part of California, no longer being obliged to compete in the markets of San Francisco, with all the northern part of the state, handicapped as we have been with the disadvantages of higher freights and longer distances, will practically have a monopoly of the markets of all the mining country east of us, through which, within two years, two overland railroads will be in operation. The completion of these roads will supply our great need, which is population. At present all of the immigration coming into California, is landed in the northern part of the state, and unless they have previously determined to come to Southern California, they are easily influenced to remain in that part of the state, or are diverted to Oregon and Washington Territory. There seems to be a systematic effort in San Francisco to prevent settlement in, and to keep back Southern California in every possible way. They have no fears of a rival seaport in the north, but they know that it is among the possibilities in the south. But when we have an overland railroad, bringing people directly into Southern California, all of the traveling public will be likely to visit our part of the state, because tourists, who come by one route, will naturally wish to return by the other. Immigrants will be able to see the advantages which we can offer for settlement, and our vacant lands will soon be occupied. We have the best soil and the best climate in the world, but population is requisite to utilize them.

Are our seasons changing? Last winter California, in common with all parts of the United State, was visited by a cold blast from the north, which did much damage to citrus fruit trees in certain localities in all parts of the state. The effect of it was to draw the line definitely between the lands where it was safe to plant them, and those other lands where they were liable to distruction from frost and cold, from causes which are permanent, and where destructive frosts are certain whenever the temperature falls to a certain point.

This year we have had a repetition of the cold snap, and although it was not so severe, and did not do so much damage as last year, still the results were serious in many instances. Parties who have been imprudent enough to plant citrus fruit trees on low valley lands, have again been reminded of their error. So far as I have been informed, the damage has been confined to those localities that suffered last year, and also that the localities which escaped last year have been equally exempt in this, furnishing additional proof that my theory of the cause of the frosts, which created such a storm of adverse criticism last year was correct, having ascertained the facts, the theory was formed to fit them, and the fact that it was correct, only made those who had suffered the more bitter in denouncing what no one attempted to disprove.

Last year the lowest point reached by the thermometer at Anaheim was 31° Fahrenheit. No orange or lemon tree in or about Anaheim was injured in the slightest degree. This year the lowest point reached was 30°, one degree lower, and nothing has been injured; and from what I can hear from Orange, Santa Ana and Tustin, no damage has been done by frost at either place. All of these places are protected from the cold night air from the cañons of the Sierra Madre by the Santa Ana range of hills that intervenes between us and the Sierra Madre, and which are high enough to dam off the frosty air and force it to follow the valleys which are its natural channels; consequently, in those valleys, where this air flows without obstruction, is where the damage was done, both this year and last, and where it may always be expected in the future, on the principle that "like causes always produce like effects." The hills that protect us are so high that before this volume of frosty air could overflow them, it would rise and submerge all of the table-lands adjoining the San Gabriel and Los Angeles valleys, consequently I feel warranted in making the assertion, that the southern end of Los Angeles county is better protected against frost than any other part of the county. These two last years are not exceptional; the exemption noted has been the rule for twenty years past. I am led to make these remarks because it is customary for the Los Angeles papers to speak of the frosts being confined to the valleys, which is true as regards a part of them, but not true as regards this part.

Vines are being planted extensively in this section. All doubts as to the future of the wine, brandy and raisin interests in this part of the State have been removed, and those parties who dug up their vineyards a year or two ago now regret it.

Anaheim wheat is also being sown largely, and but for the scarcity of seed the area sown would be trebled. Six years of exemption from rust gives confidence.

Prof. Gennert is going to give a practical test to sugar-making from dried beets. There can be no doubt of his success; and when the results are known, and he has proved that sugar-making in this county is a certainty and can be carried on with a moderate outlay of capital, I think it will be admitted by all that he has done more to advance our prosperity than any man who ever came here. Of course he has met with the usual fate of those who try to benefit the public. He has been soundly abused by the sugar monopolist of San Francisco, who is evidently alarmed at the prospect of his success; and well he may be, when our dried beets yield sixty per cent. of sugar.

We yet lack one element of complete prosperity. We have the best dairy country in the State of California, or, for the matter of that, in the United States, and if we had a few large dairies here, conducted by scientific, practical dairymen, and would thus be able to show what can be done in the manufacture of butter and cheese, in a few months there would be no complaint that our moist lands were vacant and unoccupied. These dairymen are hard to convince, and still more difficult to move. Nothing but the production of first-class butter and cheese, and its shipment to the markets of San Francisco, and its sale at first-class rates, will convince them that this is a dairy country. They will not come till some "bell-wether" leads the flock. Respectfully,

WM. R. OLDEN.

WM. G. LE DUC, U. S. Commissioner of Agriculture, is sending out a large twenty-page circular to the viniculturists of this State, with over two hundred questions and blanks to be filled with answers in regard to the raising of grapes and making of wine. The compilation of these statistics in regard to grape culture, from different persons and sections of the country, will be a valuable work for those interested in grapes and wine in the United States.

FIRST-CLASS

NURSERY STOCK!

We offer to the public a Large and Choice Selection of everything usually to be found in a nursery, at

Bed Rock Prices.

In preparing our stock for the market we have had the reputation of our nursery in view, as we are one of the permanent institutions of Southern California. We expect to build up a future business on the merits of our goods. We invite correspondence, and will send catalogue free to any address.

FISHER, RICHARDSON & CO.,

Los Angeles

NURSERY: Cor. Washington and St. Pedro Sts.
TAKE: Spring St., opposite Postoffice.

SHEEP INDUSTRY.

DOES IT PAY?—A PRACTICAL LETTER ON THE SUBJECT.

I PROPOSE to say a few words to our people about sheep husbandry, illustrating its increase and profits, and the happiness attending its pursuit in this State, and particularly in Southern California. For many years in California the popular branch of stock-raising was horn or black cattle. It has conceded, I might say, special privileges, and special legislation was invoked for its protection. And many of these laws are still on our statute books, but now of little use. The agriculturist had no protection against those roaming herds of long horned, long legged and ill-shaped bovines, but in a legal fence, and when hunger-pressed, it was hard to find a fence that would turn them. Sheepmen were in bad favor, and the lords of the rodeo in California, as now in Texas, controlled legislation. Cattle might roam at will over adjoining ranchos, but the moment a sheep passed the boundary line it was subject to seizure. Many efforts were made from time to time to curb the extraordinary demands of cattle-men, but without avail, until 1861. The writer of this article for the first time brought the matter before the legislature of this State at its thirteenth session in the following terms: See Senate Journal, thirteenth session, 1862, page 44; and in the following terms: "The agricultural interest is second to no other in the State in importance, both as a means of wealth, industry, and good order in society. Already the exports of our cereals, after supplying our domestic wants, begin to awaken attention at home and abroad to this great resource of California wealth. This, like all other branches of industry, requires wholesome legislation, adapted to its natural necessities, and insure its encouragement and growth. The farmer in California labors under one great difficulty, that is, in the procuring of proper and cheap material for fencing his land. In many localities of the State it will require an expense threefold more to fence land and protect crops against trespass of live stock than the land and crop will sell for. Thousands are prevented from cultivating grains and fruits from this cause alone. I can discover no hardship in compelling the stock-raiser to herd his stock and prevent their trespass greater than that requiring the farmer to inclose his field to secure the profit of his capital and labor. To compel the farmer to maintain a legal fence as now defined is to prevent his cultivating his own land or enjoying the use of his own property. * * * This recommendation was fiercely assailed, but a special bill incorporating the ideas was passed for Yolo, it worked to a charm, and the following sessions witnessed the passage of bills of similar import for nearly all the counties."

From this date agriculture and sheep farming commenced to assume at least equal importance with that of the great cattle interest, and after the great drouths of 1863 and 1864. The immense herds of long-horned animals began to disappear from our valleys. The wheat-field, orchard, vineyard and fine Merino flocks took their place; gave employment to our laborers, our sailors and ships, and added materially to the resources and wealth of the State.

In 1862 I received a letter from Mr. Kennedy, the superintendent of the Federal Census, asking for information about our resources; and on the wool question I stated that our statistics were imperfect, but that we were not credited with raising more than three million pounds of wool, and that of inferior quality; but I assured him that at the end of the next decade we would show thirty-six million pounds, as California was peculiarly adapted to sheep-raising, and that our people would rapidly improve the breed.

He thought I was extravagant, but the facts and figures show I was right in my anticipations. Not only have the number of pounds been thus increased, but the quality has progressed in favorable ratio with the weight. As an industry it has paid, and always will, with those who give it strict attention; and as we can observe, those who have followed it are all comfortable and happy.

It is like compound interest; it progresses night and day; and in our happy climate only calling for small exertion from the husbandman. While these conditions exist, we should not forget the slovenly manner that sheep interest has claimed and received the care of that high-toned exactness bestowed upon it in Spain, Saxony, England, and in our own Eastern and Western States.

We should be prosecuted by the human societies established for the protection of domestic animals. We simply provide for their coming into existence; if the year is good, all right; if not, we let them starve or perish in the storms. A good and humane Legislature should provide that we only should have the number we are able to find and shelter. It would be better in the end, as we would demand and receive a better price in the market, and only raise such as were profitable.

It is an easy matter to make shedding, to provide a little hay; two or three pounds of hay will keep a sheep in good condition for twenty-four hours during one of our storms, when they are dry and clean. There is a satisfaction in this beyond the humanity involved, and an economy beyond conception.

There is another economy that might be practiced, and that is, the honesty in putting up our wool for market. I have always kept tags, hides and fleeces separate and apart, and if burried I so marked it. The result has been to me five cents a pound difference; and this in the item of freight alone is considerable.

I would go further if I could, and have all our sheep-men wash their sheep before shearing, have their clean-boarded floors, and brush out the box after tying every fleece. If this course were persistently followed, we would get up our standard of wool and have the confidence of the Eastern manufacturer.

I contend that sheep will pay under all circumstances, and will discount cattle or any other stock, provided you have the proper range. This is my experience. I have followed it persistently, and I can recommend it on a small or large scale. It can be profitably pursued by the small or large proprietor. The precious little animals provide you with everything; raiment, food, and manure for your orchard, vineyard or potato ground. Apart from the present boom in wool, I recommend sheep to those who wish to thrive; but at the same time I recommend care, economy and humanity.

The enactment and enforcement of laws compelling men to provide feed and shelter for any and all stock that they claim ownership of, and particularly that innocent, docile and useful little animal the sheep, that princes have been proud to own, and kingdoms gracious enough to protect by salutary laws.

J. G. D.

Will be mailed free to all applicants, and to customers without ordering it. It contains four colored plates, 300 engravings, about 200 pages, and full descriptions, prices and directions for planting the varieties of Vegetable and Flower Seeds, Plants, Roses, etc. Invaluable to all. Send for it. Address,
D. M. FERRY & CO., Detroit, Mich.

R. G. CUNNINGHAM,

DENTIST,

74 Main Street,

Lafranco's Building. Los Angeles, Cal.

DRUGS AND CHEMICALS.

The largest stock of Drugs, Chemicals, Patent Medicines, Perfumeries, Toilet articles in Southern California, at the very lowest possible prices.

Agents for Humphrey's Homeopathic Specifics and Holman's Liver Pad.

PRESCRIPTIONS A SPECIALTY.

Put up at all hours of the day and night.

HEINZEMAN & ELLIS,

72 Main Street,

LOS ANGELES, CAL.

My Annual Catalogue of Vegetable and Flower Seed for 1880, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Full directions for cultivation on each package.* All seed *warranted to be both fresh and true to name*; so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed directly from the grower, fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.

JAMES J. H. GREGORY, Marblehead, Mass.

WALTER S. MAXWELL,

COMMISSION MERCHANT,

AND DEALER IN

Wool, Grain and Live Stock,

36 Spring Street,

Los Angeles, Cal.

THE PLUMMER

Patent Fruit and Vegetable Drier.

Reasons why it is the Best.

1. Most durable.
2. Simple to operate.
3. Most economical in fuel.
4. Fruits and vegetables dried by it command at highest market price.
5. Flavor, color and condition of fruit unrivaled.
6. More fruit can be dried by the Plummer in proportion to its cost than by any other.

An evidence of the superiority of the Plummer is seen in the fact that it received the highest award and medal at the Paris Exposition, 1878, Centennial medal, Philadelphia, 1876; three gold medals at the State Agricultural Society, Oregon, (one each year since patented) and silver medal for dried potatoes. And silver medal awarded by the Southern California Horticultural Society, 1879. Also medals and diplomas of highest award at numerous other places exhibited.

Over 1000 of these Driers already in operation on the Pacific slope since patented in Oregon three years ago.

For price, descriptive catalogue of Family and Factory Drier, address,

OGILVIE & EAMS,

Box 128. Los Angeles, Cal.

H. SLOTTERBECK & CO.,

Importers of, and Dealers in

GUNS, RIFLES, PISTOLS, CUTLERY

And Sporting Goods of Every Description.

Repairing Carefully Done.

75 MAIN STREET,

P. O. Box, 1128. Los Angeles, Cal.

LOS ANGELES

Business College.

PRACTICAL BUSINESS TRAINING SCHOOL FOR YOUNG MEN AND WOMEN.

ROOMS 1 and 4,

ODD FELLOWS' BUILDING,

Over Post-office.

Sessions day and evening. Students may enter any day in the month. For particulars, apply to

C. W. LA FETRA,
Business Manager.

WOLCOTT & VAN HORNE,

DEALERS IN

Wood, Coal, Hay, and Feed-Yard.

No. 80 SPRING STREET, Bet. First and Second.

The Cheapest Route to Southern California

Is by the Steamers of the

Pacific Coast Steamship Co.

—FROM—

SAN FRANCISCO.

Tourists and others for San Luis Obispo, Santa Barbara, Los Angeles, San Diego and all places in Southern California should take tickets as above.

The opportunity of visiting San Francisco the metropolis of the Pacific Slope, of passing through the "Golden Gate," and of enjoying a short and invigorating voyage on the Grand Pacific Ocean should be availed of, especially as the expense by this route is less than by any other.

GOODALL, PERKINS & CO.
GENERAL AGENTS,
San Francisco

Ticket Office,
No. 214 Montgomery St.

COSMOPOLITAN HOTEL.

The only

Reliable First Class Hotel

In Los Angeles.

The Finest Hotel in Southern California.

HAMMEL & DENKER, Proprs.

THIS NEW AND ELEGANT HOTEL IS SITUATED in the centre of the city of Los Angeles, and contains nearly a hundred spacious and airy rooms, newly furnished in the most comfortable style. Rooms in suite for families and parties on every floor, with hot and cold baths.

The Table

Will always be furnished with the best supplies that can be procured in the market.

A Free Coach

Is always on hand to carry guests to the house.

No pains will be spared to make guests comfortable in every way.

A large reading room open night and day.

HENRY HAMMEL.
A. H. DENKER.

WATERMAN'S

HOT MINERAL SPRINGS.

This Delightful Resort is now open to the public. It is situated in the foothills, six miles from San Bernardino, California. Altitude 2700 feet above the sea level, as given by Lieut. Wheeler's Engineer-Corps. The climate is highly recommended for

Asthma, Throat and Lung Diseases.

And the waters are good for Dyspepsia, Rheumatism, and kindred diseases. For further particulars, address

R. W. WATERMAN,
Proprietor.

UNITED STATES HOTEL.

THE CHEAPEST AND BEST FIRST-CLASS HOTEL IN SOUTHERN CALIFORNIA.

FREE COACH TO THE HOTEL.

HAMMEL & DENKER,
Proprietors.

SOME FACTS ABOUT SOUTH-EASTERN CALIFORNIA.

The mountains which rise from the sea at Cape St. Lucas and run in a north-westerly direction along the coast constitute, with their intervening valleys, Lower, or Old California. These mountains, at first irregular and broken, further north are more elevated and continuous, and are finally formed into the range known as the Sierra Nevadas. They make the backbone of the southern part of our State. On the east they sustain one of the most remarkable deserts on the American continent. It is not a continuous plain, but rather a series of basins of various extent, divided and sub-divided by lower ranges and detached hills. Some of these basins for long distances lie many feet below the level of the sea. It is proposed, by the aid of the general government, to turn the waters of the Colorado river into one of these, and thus make a lake covering a large extent of territory, with the hope of reclaiming many thousands of acres of land around its margin, and, by increased evaporation, to humidize the climate and benefit the country at large. There are other basins, having an altitude of one, two, or even of more than three thousand feet, about which have been traced at intervals the unmistakeable markings of beaches, favoring the theory that these depressions were once the beds of ancient inland seas.

The soil in the low bottoms of the Mohave and Colorado rivers is a dark loam. Elsewhere it is almost universally sandy, but only in certain localities inherently barren. Analyses show the elements of general fertility, and wherever experiments have been made by proper irrigation, even this "desert" has "rejoiced and blossomed as the rose."

In its naturally dry and parched condition the country supports only a stunted growth of the hardier plants and shrubs. The cacti, the Spanish bayonet, the yucca, from which paper has been manufactured, with a few other shrubs of no practical value, cover the higher grounds. The cottonwood, the aspen, the mesquite and different varieties of stunted willows are found scattered over the low lands, generally along the margin of the streams. A few junipers and dwarf pines adorn the mountain sides and the summits of the higher hills. In early spring a native primrose, two or three kinds of penstamons, and several bright-eyed flowers, hitherto unknown to botany, appear. Several varieties of bunch grass, one or two of the peavine, the gramma and the mesquite grasses afford good pasturage in places, and are found more or less abundantly over hill and dale. In fact, there are but few places entirely desert. Sand dunes, salt marshes and alkali plains do exist, and where the disintegration of the trachitic rocks is rapid there is but little or no vegetable life.

One of the distinguishing features of this portion of Southern California is its mineral wealth. Gold, silver, copper and lead have been discovered, and the mines are worked with some profit, even under the disadvantages of a tedious and difficult transportation. There are hills of iron ore and inexhaustible quarries of marble and of every variety of limestone undeveloped. There are extensive deposits of salt, limited quantities of borax, sulphur beds and sulphur springs, thermal springs and springs of undetermined medicinal properties. Alkalies abound, principally soda, or some of its derivatives or combinations.

The geology of this part of the State has not been carefully determined. Granite forms the base or foundation of the system. It crops out upon almost every summit, composes the higher peaks, and makes the bolder precipices. Upon it rest the basalts and other eruptive rocks. Trachite, of all colors, covers extensive territories, forms some of the lower ranges of mountains, and along the Mohave river assumes many picturesque and grotesque shapes. The porphyries, marbles and limestones of different ages are often displaced and intermingled. There are masses of obsidian, and fields of volcanic debris, and numberless extinct craters, of recent geologic age, clearly indicative of the power which has here wrought confusion and disturbed the usually beautiful order in nature.

As already indicated, the climate is exceedingly dry. Generally the air is transparent, pure, crystalline. During the winter months snow falls upon the higher peaks to such depths that it does not disappear until in June or July, sometimes not until in August. It lies upon the elevated plateaus for a few days, and but barely whitens the lower lands. The showers begin in October or November, fall sparingly, and usually cease in April or May. Then the heat sets in with great power, and soon the whole country is parched and sere. Every particle of moisture on the surface is evaporated or absorbed in the sands. The little pools disappear. The streams sink, and the lakes go dry and leave instead hard alkali beds dazzling in the sunlight like sheets of snow. The flowers die, and even the perennial shrubs and grasses lose their freshness and green and look withered and hard. The deceptive mirage fills the distant view with splendid illusions of silvery lakes, living trees and beautiful mansions, turreted and towered and domed. Nearer by, spindle-like columns of dust are rapidly borne upward by diminutive whirlwinds. As they play over the desert, and increase in power, in volume, and in height, they assume the appearance of inverted cones, filling the upper air with clouds and dark masses of dust and sand. In passing over lakes or rivers great quantities of water are taken up and vaporized and are by the winds borne away to the mountains, where they are suddenly condensed and precipitated in such torrents that the earth is furrowed and torn, and rocks weighing many tons hurled into the gorges and plains below.

Occasionally the north winds and other disturbing atmospheric forces sweep over this desolate region with terrific power. For two or three days the elements wage continuous war. There is no rain, but the air is filled with dust and coarse sand in immense quantities to great heights. Sometimes so violent are these sandstorms that houses are unroofed, wagons and stages upset, and roads blockaded with debris, and the light of the sun shut out.

A few streams issue from the cañons in the main mountains, and flow eastward into the desert where they sink in the sands. Perhaps the Mohave is the only one of them worthy of note. It rises on the north-east slope of the San Bernardo peak, flows northward fifty or sixty miles, about one third of its entire length, turns suddenly towards the east, and finally disappears in a salt marsh on the desert. There are some natural meadows, and a small quantity of fertile land along this stream. A few families make their homes there, and subsist upon the products of their cattle.

The Colorado forms the eastern boundary between Arizona and Southern California, and is a broad, shallow stream with turbid waters and an ever changing channel. Attempts have been made to navigate it with the smaller steamers, but with indifferent success. There is a limited quantity of agricultural land in its bottoms, but the excessive heat of the summers is a great obstacle to its cultivation. The channel of the river from Colville, in Nevada, southward through the highlands, is a thousand feet or more below the general land of the country. It runs through what is apparently the beds of a series of ancient lakes. By some terrible convulsion in nature the hills and mountains which at one time separated these bodies of water were rent asunder in a southerly direction, and thus a channel was opened for the river to the gulf. The beaches along the shores of these lakes are distinctly marked, and have been traced in some instances for miles on either side of the river. A kind of broad cañon, shut in at intervals with high walls and rugged precipices, is thus formed in which the heat is contracted so that the thermometer often ranges as high as 120° Fahrenheit.

In some of the mountain streams fine trout are found, but the fish of the Colorado river are unlike all others caught on the Pacific Coast. Some resemble the salmon in size and form, but differ widely in other respects. Some have the general appearance of the mackerel, but are furnished with sucker mouths. As an article of food they are all soft, oily and insipid.

Animal life on the desert never was abundant. The grizzly bear and the California lion are seldom seen. The antelope, deer and mountain sheep are met with, but not in large numbers. Coyotes, wild-cats, badgers and smaller burrowing animals are more abundant.

Reptiles are not numerous, except the different kinds of lizards. Terrapins, the horned rattlesnake, and three or four varieties of the large yellow rattlesnake have been found occasionally.

Some of the smaller birds make their habitations among the trees skirting the streams. The lark is almost ubiquitous and often makes the desert ring with his song. Vultures, hawks and eagles, with the raven and the crow are not infrequent.

The universal testimony is that the dwellers on the desert have health. There are no malarious diseases—no miasmatic exhalations. Air as pure as human lungs ever inhaled, freedom from conventionality and converse with nature in all her rugged forms inspires life.

In future papers the contrast will be noted between this desolate portion of the state and that bordering upon the Pacific ocean west of the great dividing range of mountains above mentioned, and which is distinguished for its fertility of soil, its perfection of climate, extent of territory and marvelous productions.

A. F. WHITE.

Cash Dry Goods House.

Your Patronage Solicited.

Good Goods.
Uniformly Low Prices.
Call and Examine.

—Also—

Men's Furnishing Goods.

Special Inducements in

Linen Bosom Shirts and Underwear.

Always glad to show goods.
Respectfully,

B. F. COULTER,
No. 32 Baker Block, Los Angeles, Cal.

E. MARTIN & CO.,
[Successors to
LIPPS, CRAIGUE & CO.,
Wholesale Dealers in
Wines, Liquors and Cigars.
California Wines and Brandies Made a Specialty.
24 BAKER BLOCK, Los Angeles, Cal.

OSBORNE'S
OVERLAND TRANSFER CO.
JOHN OSBORNE, Proprietor.
Special Attention Paid to Handling and Moving Safes, Pianos, Pictures, Furniture, Etc. Leave your bills of lading with us, and your Freight will be promptly delivered on arrival, or transferred without trouble to you.
OFFICE NO. 3 MARKET ST.,
Next Door to W. F. & Co.'s Express Office, Los Angeles, Cal.

INSURANCE AGENCY.
A. BERDMAN,
Ducommun Building, Los Angeles.

FIRE—LIFE—ACCIDENT.
FIRE INSURANCE COMPANIES—Imperial of London; London of London; Northern of London; Queen of Liverpool; Western of Toronto; Hartford of Hartford.
LIFE AND ACCIDENT—The Travellers' Life and Accident Ins. Co. of Hartford.
All forms of Life and Accident Policies issued; also, Railroad Accident Policies for 25 cents a day, insuring $3000 in case of death, and $15 a week in case of accident. Attention is called to the combined life and accident policy of this company.

"A PENNY SAVED IS EQUAL TO TWO EARNED."
Buy Your
PICTURES and FRAMES
—OF—
J. A. VALDER,
38 Spring St., Strelitz Block,
At Wholesale Prices, and save money. Picture frames made to order. Box frames made for Moss, Steel, Worsted and Wax-work.

V. PONET. R. P. ORR.
PONET & ORR
GENERAL FURNISHING UNDERTAKERS
No. 66 Main St.
Agents for Raymon's Metallic Burial Cases and Caskets of New York. Undertaker's goods wholesale and retail. Particular attention given to embalming bodies for shipping East.

R. M. WIDNEY,
Attorney at Law.
LOS ANGELES,
California.

S. C. HUBBELL,
ATTORNEY AT LAW,
Rooms Nos. 3 & 4, Ducommun's Block,
Cor. Main and Commercial Streets,
LOS ANGELES, CALIFORNIA.

A. BRUNSON. G. WILKS WELLS.
BRUNSON & WELLS,
Attorneys and Counsellors at Law.
Nos. 11, 12, 14, 16 and 17, Baker Block.
Will practice in the Supreme Court of this state, and of the United States, and attend to all business before the Departments at Washington, D. C.

Harper, Moore & Co.,
110 Main Street, Los Angeles.
Call on us for
Hardware, Tinware, Stoves,
Agricultural Implements,
And
Averill Mixed Paints.
Plumbing, Tinning and Gas Fitting done on short Notice.
Well and Water pipe always on hand.
Give us a call and we will save you money.
Respectfully, HARPER, MOORE & CO.

THE
San Francisco Bulletin,
THE
Leading Evening Newspaper West of the Rocky Mountains.
SUBSCRIPTION RATES,
Daily Bulletin, one year $12 00
Weekly and Friday Bulletin (making together a complete Semi-Weekly) 5 00
Weekly alone, one year 3 50
Parts of a year in proportion.
FREE SEED DISTRIBUTION.
Each subscriber will be presented with a packet containing of Rare and Valuable TREE, VEGETABLE and FLOWER SEEDS, equal in value to the subscription price of the paper.
Send for Sample Copy, giving full particulars.
Remittances by Draft, Post-Office Order, Wells, Fargo & Co.'s Express, and Registered Letter, at our risk.
Address
S. F. BULLETIN CO.,
San Francisco, Cal.

E. NAUD. O. G. WEBB.
E. NAUD & CO.
WINE GROWERS
—AND—
Wholesale Liquor Dealers.
California Grape Brandy in Bond.
Sole agents for the Whiskies of G. H. Chase & Co., Louisville, Ky.

IMPORTANT TO LAND MEN.
Land Lawyers and Real Estate Agents.
Your names will be inserted, WITHOUT CHARGE, in the American Settler's Guide, a new work on public land law, soon to be issued for extensive circulation in the Atlantic States and in Europe.
Send for a circular giving details of importance to every land man. Address BENDY & CO. P.
Washington, D. C.

TAKE NOTICE.
To those intending to plant orange and lemon trees, I would recommend the best varieties of Thornless Trees. Catalogue with full particulars sent free.
Address,
THOS. A. GAREY.
P. O. Box, 188. Los Angeles, Cal.

Markets.

Commercial Review.

Since our last there has not been any special changes in the markets, excepting in oranges. The demand for the best bring in excess of the supply, with prices rating at about $50 per thousand.

The advance in shipping rates has a tendency to lessen the number of shipments, all waiting until the rates are restored, which we believe will soon be done.

Retail Groceries, Etc.

Butter, Cali.				Rice	8	@	10
Choice, lb	20	@	25	Yeast Pwdr, doz	50	@	2 00
Cheese	18	@	20	Can'd Oysters,			
Eastern	25	@	30	doz	2 00	@	3 50
Lard, Cal	8	@	10	Syrup, SF Gd'n	75	@	1 00
Eastern	15	@	20	Dr'd Apples, lb	6½	@	12½
Flour, ex. fam				Gr'd Prunes	12½	@	10
bbl	8 00	@	9 00	Figs, Cal.	2	@	15
Capitol Mills,				Peaches	12½	@	20
⅌ cwt	00	@	3 00	Oils, Kerosene	25	@	50
Flour ⅌ cwt	2 00	@	2 80	Honey in comb	15	@	20
Superfine do	00	@	2 70	Do. No. 2	10	@	12
Graham 50-lb				Extracted	10	@	12½
sack	00	@	1 35	Bacon, Cal	9	@	10
Buckwheat	40	@	45	Hams, do	9	@	12
Oatmeal Cal, 10-				Eastern	13	@	....
lb sacks	00	@	55	Potatoes, ctl	75	@	....
Eastern do	00	@	70	Onions, ctl	00	@	2 25
Corn Meal, lb	1c	@	1½c	Beans	1 25	@	2 50
Sugar, w. cwbd	12½	@	13½	Butter	1 40	@	1 50
Light Brown	8	@	9½	Lime	5 00	@	5 00
Coffee, Green	30	@	35	Fresh Beef	5½	@	6½
Tea, Fine Blk	50	@	1 00	Round steak	00	@	8½
Finest Jap'n	50	@	1 00	Sirloin	10	@	12
Candles, Adamts	15	@	25	Porterhouse	12½	@	15
Soap, Cal	5	@	10	Chicken	3½	@	4½

For Very Good Reasons, the American Agriculturist is now largely used in combination with other journals—much more largely than ever before. While agriculture is foremost of all pursuits in importance, its profitableness is becoming more and more to depend upon improved labor-saving, labor-helping mechanical appliances. Illustrative engravings of various labor-helping contrivances, implements, animals, plants, buildings, etc., are indispensable in supplying the information most desired by cultivators generally. The special facilities for supplying such engravings, as well as other reliable information generally, makes this journal a very appropriate *companion*, or supplement, to any other journal, and for this purpose it is supplied at the lowest possible rates, as follows: The American Agriculturist and Semi-Tropic California, one year, post paid, for $2.

Good vegetables and beautiful flowers cannot be grown from inferior seeds. If our readers would procure the best they should purchase only those grown and put up by old established and reliable parties. D. M. Ferry & Co., of Detroit, Mich., whose advertisement appears in our columns, have been in the seed business for twenty-five years, and we believe are as well and as favorably known as any house in their business in the United States. Their trade extends to every hamlet in the country, and they pride themselves in sending out only the very best of all varieties of seeds. We would advise all purchasers to procure their catalogue before buying.

Budded Orange Trees.—While driving down Alameda street a few days since, we visited the pleasant home of Mr. Alexander Weiss. He showed us, among other thrifty trees and shrubs, two orange trees but two years from the bud, and loaded with fine-looking oranges. They belong to popular varieties, and Mr. Weiss is evidently proud of his treasures, which, together, must certainly have produced nearly 400 oranges this season. Mr. Weiss is very successful with sweet potatoes, and showed us some immense specimens which weighed several pounds each, and are of fine quality. It is but fair to add that Mr. Weiss devotes his time entirely to his place, and the fine specimens which he exhibits are due to constant care and labor.

We were recently shown some remarkably fine-looking oranges grown on the place of Mrs. J. Sepulveda, on Alameda street. She has nearly 2,000 trees in all stages of their growth, and we were pleased to learn that she can hardly keep pace with the demand for her improved varieties of young trees.

Of Interest to Miners.—A new and valuable invention has recently been patented by our enterprising fellow-citizen, Mr. John Waugaman. It is well known that portions of Southern California are rich in gold dust, but the difficulty heretofore has been to obtain a sufficient supply of water to wash it out. Mr. Waugaman's invention obviates this trouble, and is commended by all who have seen and used it. It requires no water, and is easily and economically worked. Mr. Waugaman claims that in ordinary placer a man can make from $4 to $20 per day, and he is prepared to guarantee this. It opens a new field of industry in Southern California, and we shall be pleased to chronicle its success.

J. G. Jackson. W. G. Kerckhoff. James Cuzner.

JACKSON,
KERCKHOFF
& CUZNER,

Dealers in

Lumber, Windows,

Blinds, Doors,

Moldings, Laths, Pickets, Shingles,

Plaster Paris, Cement and Hair.

Cor. of Alabama and First Sts,

Los Angeles, Cal.

NOEL & FELT,

DEALERS IN

Imported and Domestic

LIQUORS AND CIGARS,

114 Main Street,

Los Angeles.

Agents for Noble Whiskey.

D. M. GRAHAM,

Land and Loan Broker,

Is prepared to place loans on real estate security at current rates of interest without delay.

Rooms 7 and 8, Commercial Bank Building,
Los Angeles, California.

The Pasadena Land-office.

The climate, soil, water, system, beautiful scenery, special and general advantages of Pasadena are now too well and widely known to require any puffing at my hands. See and you will believe. I can offer you, in all parts of the country, your own kind of land, at your own price, from $5 per acre, upward; and I will take pleasure in showing you about the country. D. M. GRAHAM.

WALTER S. MOORE,

FIRE INSURANCE.

Policies written here on

BUILDINGS OF ALL KINDS,
GRAIN AND HAY.

Special rates on growing crops.

36 SPRING STREET.

Central Block, Los Angeles, Cal.

Fruit and Farming Land

(For Sale). All Irrigable.

800 ACRES VERY CHOICE FRUIT AND farming land at Orange, Cal., all with water right and water stock, etc., under the Santa Ana Valley

Irrigation Co.'s Water Ditch,

Will be sold on the most reasonable terms, entire, or in lots to suit. Address,

Dr. H. S. Orme,
Los Angeles, Cal.

PURE

And Unadulterated Candies, made fresh every day at the

LOS ANGELES CANDY WORKS,

Spring Street, Los Angeles.

A pure, healthy article of candy is seldom to be found. This house pride themselves on the purity of their stock. Ladies' lunch-room attached.

REMEMBER

In buying your Groceries, Provisions, Crockery, etc., that there is but one store in Southern California where goods are bought and sold exclusively for cash, consequently the only place where you can get the same at any time, and under all circumstances, at the very lowest possible prices, and that is the

AMERICAN CASH STORE,

C. W. GIBSON, Prop.

No. 48 and 50 Spring St.

Tablets issued. Los Angeles.

R. J. TRUMBULL. CHAS. W. BEEBE.

R. J. TRUMBULL & CO.

Wholesale and Retail Dealers in

Seeds, Trees, Bulbs, PLANTS.

FANCY POTTERY, ANTIQUE WARE, RUSTIC BASKETS, GARDEN TRELLISES, GARDEN HARDWARE, LAWN MOWERS, ETC., ETC.,

Nos. 419 and 421 Sansome Street, SAN FRANCISCO.

Catalogues on application.

RIVERSIDE LANDS!

The Riverside Land and Irrigating Company, of San Bernardino County, offer

15,000 ACRES!

Of the most desirable land in Southern California for Semi-Tropical

FRUIT GROWING

AND

Beautiful and Healthful Homes.

These lands are located in the Santa Ana Valley, San Bernardino County, 50 miles southeast of Los Angeles, and 7 miles south of Colton, a station of the Southern Pacific Railroad.

Twenty-eight miles of irrigating canals are now completed, and there is abundant water in the dryest seasons to irrigate all the lands offered by the Company. About 1,000 inhabitants are now in the Colony—enterprising and intelligent people. We have good schools, four church organizations, daily mail, telegraph line, newspaper, etc. Lands are offered at moderate prices and on liberal terms, and no lands are sold but to actual settlers. I invite all seeking homes in this portion of the State to call and see us before purchasing elsewhere. Every facility will be afforded for the examining of the lands offered.

S. C. EVANS, President R. L. & I. Co.

LAKE VINEYARD

LAND AND WATER ASSOCIATION

This Association is now offering for sale on easy terms some of the finest lands in California. They are situated about 1000 feet above the sea, in the rich and beautiful valley of San Gabriel, protected on the north by the Sierra Madre Mountains, while on the west a range of hills and mountains tempers the chill of the sea breeze as it passes over them for forty miles before reaching this locality. This combination of advantages makes it a delightful residence for invalids, while the lands produce all the grains and fruits of the temperate zone, and many of the products of the tropics. The land is supplied from large reservoirs fed by mountain springs, and carried in pipes along all the avenues of the tract which is divided into ten-acre lots, with water rights for every lot. This property is but seven miles from Los Angeles, and near the line of the Southern Pacific Railroad. For prices and full details, address

F. W. WOOD,

Secretary L. V. L. & W. A.

WM. H. PERRY. W. W. WOODWORTH. S. H. MOTT.

PERRY, WOODWORTH & CO.,

STEAM

Sawing, Planing & Molding Mills,

At their Lumber Yards,

76 Commercial St., Los Angeles Cal

Dealers in

Lumber of all kinds, Plaster, Hair, etc.

Also manufacturers of

Doors, Sash, Blinds, Moldings and cut and turned work of all descriptions.

Dotter & Bradley,

Dealers in

Furniture, Carpets,

Wall Paper, etc.

80, 82, 84 Main Street.

Los Angeles, Cal.

Largest Stock

And

Lowest Prices.

Phineas Banning.

Forwarding

—AND—

Commission Agent,

Wilmington, Los Angeles Co., Cal.

Vessels Towed,

Goods Lightered.

Lumber and Grain stored with accustomed promptness.

BANKING HOUSES.

COMMERCIAL BANK

OF LOS ANGELES.

Authorized Capital $300,000

E. HOLLENBECK ..... President
E. F. SPENCE ..... Cashier

DIRECTORS

A. H. WALLACE, W. [illegible],
S. H. MOTT, H. MAURICE,
I. LAWRENCE, O. N. WHITNEY,
E. F. SPENCE, J. E. HOLLENBECK.

This Bank is prepared to receive deposits on open account, issue Certificates of Deposit, and transact a general Banking Business.

Collections made and proceeds remitted at current rates of exchange.

FARMERS' & MERCHANTS' BANK

OF LOS ANGELES

CAPITAL $500,000

DAVID W. HELLMAN ..... President
L. C. [illegible] ..... Vice-President
JOHN MUNTON ..... Secretary

BOARD OF DIRECTORS

DAVID W. HELLMAN, JOHN S. [illegible],
O. W. CARTER, C. E. [illegible],
L. C. [illegible], A. [illegible],
PHIL. [illegible], [illegible],
[illegible]

Exchange for sale on
NEW YORK, LONDON, DUBLIN, FRANCE, PORT, PARIS, BERLIN, AND HAMBURG

Receive Deposits and Issue their Certificates

Buy and sell
LEGAL TENDERS, GOVERNMENT, STATE, COUNTY AND CITY BONDS.

Will also pay the highest price for gold and silver bullion.

LOS ANGELES COUNTY BANK

MAIN STREET.

LOS ANGELES, CAL.

Capital Stock (paid up) $300,000

J. S. SLAUSON ..... President
M. S. BANON ..... Vice-President
J. M. ELLIOTT ..... Cashier

DIRECTORS

J. S. SLAUSON, A. W. POMEROY,
V. A. MARTIN, [illegible],
J. BURT, [illegible],

Receive Savings Bank Deposits.
Buy and sell exchange on San Francisco, New York, London, Paris, Berlin and Frankfort.
Buy exchange on all parts of the United States and Europe.
Receive money on open account and Certificates of deposit, and do a general Banking and Exchange Business.

Abel Stearn's Ranchos.

THE

Center of Los Angeles Valley,

Los Angeles Co., Cal.

80,000 Acres for Sale

WILL BE

Sold in Tracts to Suit,

AT

Very Low Prices, and on Easy Terms and Low Rate of Interest.

Six Hundred Farms

Already Sold and Improved.

This Land is within the

Artesian Well Belt,

and has water near its surface.

Roads are to be laid out on every section line, forming blocks of one mile square, with roads on all sides and on many quarter section lines.

See Map of Los Angeles County for location of lands.

Convenient to markets and competing lines of shipments for produce, etc., etc.

Churches, Schools, and Societies, as good as in many localities in the East.

For terms, prices, etc., address

Alfred Robinson,
120 Sutter Street,
San Francisco, Cal.

Or

Wm. R. Olden,
Anaheim,
Los Angeles, Cal.

SIERRA MADRE VILLA.

A Private Hotel on the table lands of the Sierra Madre Mountains, in full view of the famous Orange Orchards of the San Gabriel Valley in Southern California, for the accommodation of parties seeking a mild and healthful climate. It is four miles from the Mission San Gabriel Railroad and Telegraph Station; thirteen miles from Los Angeles. The buildings are entirely new, lighted by gas, and with all the comforts of an Eastern home. For further information

Address **W. P. RHOADES**, San Gabriel, Los Angeles Co.

LANDS!

FOR SALE—TO RENT—AND FOR DISPOSAL OTHERWISE,

In different portions of Los Angeles County and City.

Especially upwards of 2000 acres of land well adapted to the growth of vineyards, to be disposed of on shares, i. e., one portion to be cultivated, planted and kept in grape vines for three years, in consideration of conveyance of another portion. Of the lands last referred to a large body is on the Tujunga Ranch, and is irrigable from the Tujunga Creek during the winter and up to the middle of June. Some capital as well as labor is requisite for constructing ditches and clearing off the brush which grows on about two thirds of the land. Any company or colony seeking a location desirable as an investment, or as profitable, healthy and pleasant homes, should look at these. For particulars, apply to

HUGH GLASSELL,
At Office of Glassell, Smith & Smith,
TEMPLE BLOCK, LOS ANGELES CITY.

S. H. SEYMOUR. **RUSS HOUSE** C. P. KASSON.

Montgomery Street, Extending from Pine to Bush Streets, San Francisco.

S. H. SEYMOUR & CO., Proprietors.

The Leading Industrial Family Hotel of San Francisco. Having been recently enlarged and newly furnished throughout with elegant rooms, at prices lower than any other Second-class Hotel on the Pacific Coast. 100 Rooms at $2.50 per day; 150 Rooms at $2.00 per Day; 60 Rooms at $1.50 per day. And still lower rates for Families and other large Parties. The table is superior to any other Second-class Hotel in the city, being supplied with the best the market affords. Fruits and vegetables cooked and served in season. Baggage and messengers to convey guests to the Hotel, Free of Charge.

MARCH

SEMI-TROPIC CALIFORNIA AND SOUTHERN CALIFORNIA HORTICULTURIST.

LOS ANGELES, CAL.
CARTER & RICE,
PUBLISHERS

VOL. III. 1880. No. 3.

REMEMBER

In buying your Groceries, Provisions, Crockery, etc., that there is but one store in Southern California where goods are bought and sold exclusively for cash, consequently the only place where you can get the same at any time, and under all circumstances, at the very lowest possible prices, and that is the

AMERICAN CASH STORE,

C. W. GIBSON, Prop.

No. 48 and 50 Spring St.

Tablets issued. **Los Angeles.**

LANDS FOR SALE

BY

A. F. WHITE & CO.,

REAL ESTATE AGENTS,

No. 1½ SPRING ST., Los Angeles, Cal.

We respectfully ask the readers of this Journal to note the following rare bargains in Real Estate. We have a large amount upon our books for sale, and all special inquiries addressed to us will be promptly answered.

160 ACRES of highly improved farm land, five miles from the Court House. Large two-story dwelling house, and tenant house which can be used for dairy purposes. Barns, sheds, and other out-buildings. Two good wells, pump, and wind-mill. Large reservoir. Place all fenced with board fence. Plenty of fruit for family use. This is a fine dairy farm. Price, $9000.

150 ACRES at Pasadena, all tillable. Good wheat or barley land; no finer in the country for grapes or olives, neither of which require irrigation. Excellently located for raisin culture, it having a beautiful sunny slope. No improvements. Price, $15 per acre.

30 ACRES on Washington street. Beautiful vineyard or fruit land. Elegant view of the valley. Splendid place for a business man to build a home. Very choice bargain. Price, $1100.

320 ACRES farm land in the San Jacinto Valley, 12 miles from R. R. Station, in rapidly improving country. Well adapted to fruit and vines as well as grain. Water in great abundance 14 to 18 feet from surface; no better farm land in the state. Price, $2000.

S. HELLMAN,

No. 95 Spring St.

Has received a large and complete line of

Holiday Goods,

Books, Stationery, Fancy Goods, Toys, Fine Hardware, Soaps, etc.

A. LUSK & CO.,

COMMISSION MERCHANTS,

Wholesale dealers in green, dried and canned fruits, and general farm products. Their long experience in the business, and high, honorable dealing, entitle them to the patronage of all shippers.

534 & 536 Clay St. 539 & 531 Merchant St.

SAN FRANCISCO, CAL.

T. E. ROWAN,

REAL ESTATE AGENT

—AND—

COMMISSION AGENT.

Houses, farms, ranchos and orchards to rent.

77 Downey Block,

Los Angeles, Cal

L. LICHTENBERGER,

Manufacturer of all kinds of

WAGONS, CARRIAGES, ETC.,

Main Street,

Los Angeles, Cal.

The best kind of work guaranteed.

DILLON & KENEALY,

DEALERS IN

Staple and Fancy Dry Goods.

All the latest novelties and new styles received weekly.

We invite you to call and inspect our goods and prices.

MAIN STREET,

Los Angeles, Cal.

THOROUGHBRED POULTRY.

Largest stock of Imported Fowl on the Pacific Coast. Bone meal and poultry supplies always on hand. General Pacific Coast Agent for the American Poultry Food. It will make your hens lay, and prevent disease. For raising young chicks it is almost indispensable. My yard contains choice strains of the leading varieties, including Leghorns, Plymouth Rocks, Pekin Ducks, etc. Eggs for hatching packed to go any distance. Prices always reasonable. Safe arrival of fowls and eggs guaranteed. Importer and Breeder of the Improved Short-Nose, Dish-Faced Berkshires. Also, Magic Poland-China Pigs.

Letters of inquiry, enclosing stamp, cheerfully answered. Address,

WILLIAM NILES,

Importer and Breeder.

P. O. Box 250. LOS ANGELES, CAL.

D. M. FERRY & CO., Detroit, Mich.

NOEL & FELT,

DEALERS IN

Imported and Domestic

LIQUORS AND CIGARS,

114 Main Street,

Los Angeles.

Agents for Noble Whiskey.

G. B. SANGUINETI, Los Angeles. | A. VIGNOLO, San Francisco.

La Esperanza Store.

SANGUINETI & VIGNOLO.

WHOLESALE AND RETAIL DEALERS IN

GROCERIES, PROVISIONS,

WINES AND LIQUORS.

COMMISSION MERCHANTS.

☞ Highest price paid for all kinds of country produce.

108 Main Street,

Opposite Court House. **Los Angeles.**

EVERYBODY

Knows or should know that

The Grange Store

—IS—

Noted for its Low Prices

—AND—

Choice Groceries.

Highest Prices Paid for all Kinds of Country Produce. Gilt Edge Butter a Specialty.

SEYMOUR & CO.

THE CHEAPEST

—AND—

BEST

GROCERIES

—AT—

GEO. D. ROWANS,

Baker Block,

Los Angeles, Cal.

SEMI-TROPIC CALIFORNIA

DEVOTED TO AGRICULTURE, HORTICULTURE, AND THE DEVELOPMENT OF SOUTHERN CALIFORNIA.

VOL. III. LOS ANGELES, CAL., MARCH, 1880. No. 3.

WINES OF LOS ANGELES.

THE MORE ENLARGED OPERATIONS OF MODERN VINTNERS—LOS ANGELES BRANDY—PROSPECTS FOR THE SEASON.

From the San Francisco Chronicle.

THE wines of Los Angeles county have now assumed such a prominent position in the marts of commerce, that a sketch of their origin and progress has become an important element in the industrial history of the State. The Spanish Franciscan Friars, who established the Mission San Gabriel in 1771, brought with them the most luscious grape that is known to pomology, a fruit that will ever be remembered as the Mission grape. Coming from a country famous for sweet wines, it was natural that they should bring with them the vine best adapted to produce the sweet wines of their fatherland. The first wines made were mostly port and angelica, with a small amount of white wine. They also produced aguadiente and a fine quality of brandy. The oldest American residents now living, who had an opportunity of sampling some of the brands of old wine and brandy made at the Missions in an early day, pronounced it a quality unsurpassed. These fine products were all consumed in the country by a people accustomed to the use of the strong, sweet wines of Spain and Portugal. But when the immigration from latitudes farther north began to settle in California, when French, German and Yankee immigrants commenced wine-making in Los Angeles, they saw at once that a larger field for the sale of their wines was needed than that afforded by the limited number of people who used sweet wines. It is estimated that ninety-nine hundredths of the wine used in the world is light wine. In consequence, the manufacture of lighter wines was attempted, and hock, claret and some sherry began to be made. In this attempt it was soon discovered that, while the Mission grape was unsurpassed for port and angelica, or for brandy, something else was necessary for claret and other light, sour wines. Experiments were made and careful tests noted of the different kinds and qualities of wine produced from a large variety of foreign grapes. After testing over two hundred varieties of grapes, it has been found for the uplands of Los Angeles county that the Blanc Elba, Zinfandel, Berger, Riesling, Gutedel, Black Malvoisie, Chasselas, Burgundy and Muscat of Alexandria are the most profitable wine grapes. Some of these varieties mildew in the bottom lands where the Mission is perfect and safe, but on the warm, mellow uplands they ripen evenly, furnishing clusters free from unripe fruit, which gives a sharp, acid twang to the wine. Moist lands can be cultivated with profit with the Mission grape, where the Riesling and Berger would mildew before complete maturity. At Sunny Slope, L. J. Rose has experimented for nineteen years with intelligent patience and care for the grapes that produced the most and best wines for popular use, till he is enabled to shout "Eureka!" His vast establishment now turns out from Blanc Elba, Zinfandel and Berger those

LIGHT TABLE WINES

That are pronounced by connoisseurs equal to those of France and Germany. These three varieties are now being planted in larger quantities than any others, and seem the source of making Los Angeles County as famous for light wines as it has heretofore been celebrated for its oranges. Mr. Rose has cultivated mainly the Riesling, Blanc Elba, Zinfandel, Black Malvoisie, and the Mission. The business of wine-making is undergoing an important change. The more successful vintners have enlarged and improved their manufacturing facilities so that the cost of production of wine and brandy, by the aid of machinery, has been reduced to a minimum. This enables them to enter into the market as large buyers of grapes, and to pay such liberal prices that many vintners prefer to sell their grapes rather than manufacture them into wine as formerly; consequently, the number of wine-makers is decreasing, while the amount of wine made by the leading vintners is largely increasing. As

AN INSTANCE OF REMARKABLE GROWTH

In this direction, the immense establishment of L. J. Rose at Sunny Slope is a good illustration. Mr. Rose has purchased the grapes from 106 vineyards, and with his own vineyard has this season manufactured 5,000,000 pounds of grapes into wine and brandy. He has made 220,000 gallons of wine and 47,000 gallons of brandy, besides purchasing 77,000 gallons of wine from small vintners. His establishment is the finest of the kind in the Union, its capacity for manufacturing being to the amount of 200,000 pounds of grapes per day, which quantity can be converted into wine and brandy; and the distillation of wine into brandy can be carried on to the extent of 2,500 gallons daily. During the next year the young vines at Sunny Slope will add their yield to the already large product of this fine estate, which, with its 500,000 vines will outrank any vineyard in the Union.

THE Port wines of Mr. L. J. Rose have received a compliment of which any vigneron might be proud. We learned of the following incident through a channel which we need not name; suffice it to say that it is authentic. General Edward F. Beale, who is himself no mean judge of wine, some years ago gave a dinner party in Washington, at which Secretary of State Fish, Sir Edward Thornton, and other gentlemen experienced in wines, were guests. Mr. Fish had the reputation of being the best wine connoisseur in the Federal capital. Without any remark, some of Mr. Rose's old port was placed upon the table. It instantly attracted the notice of Secretary Fish, of Sir Edward Thornton, and other noted *bon vivants*. They pronounced it the very best port they had drank in a long while. "Gentlemen," said General Beale, "that is a California wine." A great deal of surprise was confessed by the general's guests, but they adhered stoutly to their former judgment.—*L. A. Express.*

A ton of peaches or apricots makes 1000 cans of fruit.

SEMI-TROPIC

CALIFORNIA

AND

SOUTHERN CALIFORNIA HORTICULTURIST.

Devoted to Agriculture, Horticulture, and the development of Southern California.

Terms $1.50, per year, in advance, postage prepaid.

Address, CARTER & RICE, Los Angeles, Cal.

CIRCULATION - - - - 5000.

At the request of a number of subscribers, we print all the letters on grape culture by L. J. Rose, Esq., in one number, so that they will be in convenient form for reference. Mr. Rose has now resided on Sunny Slope for nineteen years, and in that time has probably made the most valuable fruit farm and vineyard in America. His entire time has been occupied in that and the making of wine and brandy. The past year he has increased his capacity for the making of wine and brandy, and his establishment can now work up 100 tons of grapes in 10 hours, and double distill 2500 gallons of brandy in 24 hours. It is believed that for economy in working, and amount of work that can be done, it is superior to any establishment in the world. It was worked during last vintage to its full capacity, night and day, and yet it was not sufficient to furnish goods for the houses in which Mr. Rose is a partner. Mr. Rose, some years since, associated himself with the firm of Perkins, Stern & Co., the pioneer California wine-house in New York. Mr. Perkins dying, the firm name was changed to Stern & Rose, and they now have a house Nos. 14 and 16 Vesey street, New York; No. 27 Lake street, Chicago; and No. 41 Milk street, Boston, where our Eastern friends can with certainty find pure unadulterated wine and brandy of every variety, made in California, and we feel confident you will be pleased with them. We are pleased to do Mr. Rose a kindness by recommending his goods; for much good has he done to our portion of California. We would say more, but as we have published his letters, and have taken various extracts from different papers in this county and State, we prefer to let others speak.

Miss Florence Carter has placed in our hands a pretty bouquet of wild flowers, gathered on the hills and valleys of San Gabriel, together with the names of each variety. Think of it, you shivering ones of the cold East—beautiful wild flowers February 9! Thanks, Miss Florence.

OUR MONTHLY SERMON.

Think naught a trifle, though it small appear;
Small sands the mountain, moments make the year,
And trifles, life.—Young.

LOST, yesterday, somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes. No reward is offered, for they are gone forever. Such are the beautiful and terse words in which Horace Mann speaks of the loss of time.

One of the most important lessons to be learned by every man who would get on in his calling, is the art of economizing time.

It is a truism which cannot be too often repeated, that lost wealth may be replaced by industry, lost knowledge by study, lost health by temperance or medicine, but lost time is gone forever.

In the long list of excuses for the neglect of duty, there is none we hear oftener than the one "I have not the time."

How many good and useful things might be done, if not for the delusive excuse "if I only had time."

Persons are always cheating themselves with the idea that they would like to do this or that desirable thing, "if they only had time."

Such are the pleas by which the lazy and the selfish excuse themselves from a thousand things which conscience dictates to be done. Those who do the greatest things, or accomplish the most good, do not so by great and fitful efforts, but by steady unremitting toil; by turning every moment to account.

"A continual dropping wears away the stone." A little done this hour, and a little the next hour, day by day, and year by year, brings much to pass.

"Old-fashioned economists," says the eloquent Wirt, "will tell you never to pass an old nail or horse-shoe, or buckle, or even a pin, without taking it up; because, although you may not want it now, you will find a use for it some time or other."

However useless it may seem to you at the present, seize up all that is fairly within your reach.

"What shall I do lest life in silence pass?"
And if it do
And never prompt the bray of noisy brass,
What needs't thou rue?
Remember aye the ocean deeps are mute;
The shallows roar;
Worth is the ocean,—Fame is the brute
Along the shore.

Franklin said: Dost thou love life? Then do not squander time, for that is the stuff life is made of.

Whilst the great ex-premier of England, Gladstone, said: "Believe me when I tell you that thrift of time will repay you in after life with a usury of profit beyond your most sanguine dreams, and that the waste of it will make you dwindle alike in intellect and moral stature, beyond your darkest reckoning."

In planting orange seeds, only use those of choice large oranges in a decayed condition.

RANCHO CERRITOS.

THE corn raisers on this rancho do not need the instructions, so prominently set forth by so many agricultural papers: "How to raise one hundred bushels of corn to the acre." What they want to know is how to raise two hundred; one hundred is a common occurrence without any special care and without irrigation.

Fifty bushels of wheat to the acre is the average yield, and Mr. Bixby has over six hundred acres in wheat this season, and the prospects were never better for an immense yield.

The rancho contains 25,000 acres of land, lies in between the Santa Ana and Wilmington branches of the Southern Pacific Railroad, and between the old and new San Gabriel rivers, and is a continuation of the Los Nietos valley, the far-famed corn and pumpkin district that extends to the ocean by the port of Wilmington. The soil is of a diversified character, and upon this ranch can successfully be cultivated every product known to a semi-tropical or temperate climate. It is right in the Artesian belt, with a large number of flowing wells on it, which have been obtained at a depth of from 50 to 150 feet.

Wheat, barley, rye, oats, corn, sugar-beets, alfalfa, and the whole vegetable family grow to perfection. Mr. Jotham Bixby, the worthy owner of this immense ranch, and whose generous impulses are in keeping with his wealth, segregated and put upon the market, about two years ago, several thousand acres of this ranch near the port of Wilmington, at prices and terms that enabled farmers of small means to purchase and locate a colony; at the moderate price and easy terms Mr. Bixby has given these farmers they will make enough corn on the land to pay for it this year. He has much more of these fine lands for sale, and with the rich productive force of this soil, its water, and transportation facilities, its healthful and almost unvaried salubrious climate, together with the reasonable price and favorable terms of purchase, there is no land on this coast that offers such favorable inducement to those that may seek a home in this famed land. For particulars address Jotham Bixby, Compton, Cal.

A Venerable Peach Tree. On the premises of Mr. Montague on Main street, is a large peach tree which was brought here from the East in the early days of our state. It is of the variety known as the early Crawford, has borne fruit for twenty-two years and bids fair to be a profitable tree for some time to come.

The Los Angeles Academy, under the management of Prof. Frambes, offers superior advantages to pupils to secure a thorough education, and ranks among the best of the educational institutions of California.

Prof. Gennert of Los Angeles, will have his Sugar Factory in full operation by the time the first beets are ready.

ILLUSTRATIONS.

Our illustrations are engraved expressly for the SEMI-TROPIC. We shall place before our readers each month some portion of Southern California rancheros, vineyards and orange groves; a fine residence, a handsome church, a substantial and elegant business block.

We share in the general pride in our beautiful city's substantial buildings, and shall forewarn our Eastern friends that the coming immigrant may not be so much surprised at its "solid" look as we were.

The engraving on this page is a view of the residence of J. E. HOLLENBECK, one of the foremost of our public-spirited citizens, always ready to pu his shoulder to the wheel to forward the material interests of the city, county, State, or nation. Mr. Hollenbeck is a native of Ohio, after a residence of twenty-five years in Nicaragua (the Republic he now represents as Consul and Financial Agent for California); came to California in 1874, in search of a more congenial and healthful climate. His health improving rapidly during his short stay in Los Angeles County, he at once bought property, and returning to Nicaragua, settled up his business there, and removed with his family to Los Angeles in 1876; built the original of our engraving in the beautiful suburb of Boyle Hights. Mr. Hollenbeck is engaged in mining and in a number of private enterprises, among them the improving of the Kewen place, or "El Molino Rancho," at San Gabriel—a late purchase—putting in practice his faith in grape-raising by planting 60,000 cuttings this winter. He is also a stockholder and President of the

COMMERCIAL BANK.

An engraving of this fine building is found on page 37. It was designed by WM. LACY, who has been with the bank from its opening, and is well and favorably known in the banking world. The building was erected expressly for this bank. Complete in every detail, it is, with vault and safes, one of the best appointed bank buildings on the coast. The financial standing of the *Commercial* ranks high, and its success is largely due to

E. F. SPENCE, CASHIER,

who has been manager of its affairs since its opening in 1875. No public enterprise is considered complete without his aid, and none lag when he is at the helm. Mr. Spence's opinions on the general questions of finance are recognized as sound and worthy of consideration in banking circles throughout the country.

RESIDENCE OF J. E. HOLLENBECK, LOS ANGELES, CAL.

Our engraving of carp and carp pond are from the *American Agriculturist*, a paper that should be in the hands of every farmer; next after buying utensils to farm with he should subscribe for the *American Agriculturist*, and we believe the subscription should come first; then Mr. Farmer could buy more understandingly. We give the SEMI-TROPIC CALIFORNIA and the *American Agriculturist* together for $2 per year.

THE western hill slopes of the city are admirably adapted to semi-tropical fruit culture, as the thriving young orchards of Messrs. Garrett, Moody, Barker, and others, testify. We saw many young trees, not more than two years from the bud, full of fine large oranges of delicious flavor and free from smut.

The first raisins made in San Diego County were produced by W. C. Kimball, of National Ranch.

RAISINS.

BRIEF EXPERIENCE IN RAISIN MAKING.—ARE THEY RAISINS OR DRIED GRAPES.—WHO CAN TELL?—IS THERE A RAISIN EXPERT IN SOUTHERN CALIFORNIA?

BY O. H. CONGER.

AS a novice in raisin making and grape growing, I desire to place before the public a few interrogatories, and make a few suggestions by way of comment, in order to elicit information concerning the best methods to be pursued, to as far as possible obviate the many difficulties that beset the industry.

To look upon a thrifty growing vine or vineyard bending beneath its heavy clusters is truly inspiring, and still more encouraging to gaze upon the deep amber colored layers so deftly placed in the boxes for the market, after the obvious critical manipulation having been gone through with, thus to transform the grape into the raisin. A recent brief experience renders this pleasing and fascinating enchantment more of a stern reality than an incautious consideration of the subject would impress upon the minds, so much so that a few hints, founded upon facts, may serve to caution the observing student of the future.

The first, most suggestive and important question to raisin producers, is, what are the essential properties of the true raisin? At one stage of the growing and ripening grape, little but acid properties are perceptible, but by degrees, under favorable conditions, the grape sugar (glucose) is or should be largely developed and retained. And right here is an important secret in the process of raisin making, for unquestionably that notably famed delicious raisin flavor is due to a

fixed combination of the acid and saccharine properties of the pulp substance of the grape. Now, how are the enacting conditions necessary to meet these demands of the vine to be supplied, or if inherent in soil and climate, how are they to be preserved? The raisin grape must be regarded as a miniature chemical laboratory, requiring conditions for an exact formula in order to secure best results. Of course no one will presume to step forward and detail this process, yet approximate suggestions may obtain from close observation under best conditions. It probably can already safely be stated that an undue application of water during the growing and maturing of the grape will, beyond question, retard the development of its saccharine property, by forcing into it an excess of water, and which will also serve to carry off the sugar to a damaging extent in the usual process of curing. The above proposition can scarcely be questioned. A nice point then, in the first place, is *in growing* a grape that will make a standard raisin. Too liberal a use of water will certainly puff out and produce a large showy grape and raisin, but devoid of the rich and delicate properties so highly prized. Upon the other hand, a poor soil and paucity of water will prove far more damaging in a stunted and poverty stricken product. A rich, heavy, deep soil in this climate by winter irrigation alone, and summer mulching will unquestionably yield an acceptable quality of raisin. This heavy soil, however, should be rich in iron, lime, or potash, and should also receive thorough and proper cultivation, so as to leave the surface, at least, finely pulverized at the close of the winter irrigation. A more amenable soil, and that which will ensure more liberal returns, in this culture, will be found, however, in the deep sandy loom, liberally stored with iron and potash or lime. This soil will also produce the typical raisin, other conditions properly observed. Water can be applied to advantage in all such soils during the dormant stage of the vine, but it is yet an unsettled question whether in this natural home of the vine water may not prove greatly injurious to the more delicate qualities of the raisin. In discussing this question of quality scarcely will two individuals be found to agree as to what constitutes quality. One dealer is governed entirely by the size of the raisin, while another regards the manner in which they are packed as the most essential to ensure rapid sale and large profits. As yet, there are neither standards or experts connected with this branch of industry in this section of the country. It is true, however, that careful packing will bring an inferior raisin up to comparatively a high grade, very effectually concealing intrinsic defects; yet ever so much care and labor bestowed can never originate quality. An *unripe* grape can never be made to produce a raisin. The condition of the grape at picking is invariably prophetic of the subsequent raisin. Its rich or poor quality is then secured beyond control, so far as inherent properties are concerned, and the curing process and subsequent manipulation has to do only in affecting requisite conditions for those changes to occur, competent to ultimate in a good or poor quality of raisin.

Here, again, are other unsettled questions as to what are the proper conditions. Artificial heat for one thing is applied often times to facilitate the escape of the excess of water in the grape. This can scarcely be called anything else than a rapid method of drying. It is not a curing process. Something beside heat is requisite for raisin curing. Not alone the heating rays of the sun are required for this process no more than for the growth of vegetation, or even that of the grape. This artificial drying, no doubt, is a necessity in some sections, but our standard will never be raised by this method of raisin curing.

If the grape has reached the last stage in the ripening process at picking, a constant solar heat, during the day, of 110° will produce the embryo raisin in twenty to twenty-four days, during the month of August and September, if exposed on trays upon the ground; and for every foot raised above the surface from one to two days longer will be necessary to reach the required condition. Should the grape be yet green at picking, and certain time will be necessary to carry it through this curing stage, and the result then, as before, intimated, will be anything but satisfactory. I think it is safe to estimate that from one third to one half of the entire product of Southern California the present season, were entirely too green at picking. I come to this conclusion from a close inspection of those exposed in the markets for sale. Experience, a critical judgment, and great care are requisite qualifications in the grape-pickers, in order to detect the folly ripe from the unripe ones, the shadings of difference between them are so slight, and as before stated, it is here that those nice distinguishing features of the premium raisins are secured, the world over. After the sun curing, comes the sweating process, during which a certain degree of moisture greatly facilitates the process as well as greatly promotes the development of the inherent properties of the grape into the raisin proper, and no doubt but what this part of the process should consume weeks instead of days, to secure the best effect before packing.

In this last department, the difficulties increase rather than diminish; for it is here that the profits on all past labor as well as reputation is gained or lost in a great measure. This last is the magic touch that secures to you the favorable or unfavorable influence of the "Bulls or Bears" in the markets. You can go up or down as you will, by a careful handling, assorting, grading, and nice, mechanical packing, or the loose slovenly manner too generally pursued. There is no excuse for illy handling or preparing for sale well formed and cured stems of raisins. The packer should possess mechanical skill, quickness of perception, nice touch, order and neatness, without which he is totally unfit for the position.

A discussion of the propriety of constant irrigation of the vine to stimulate greater productiveness, larger grapes, and hence larger profits, during their first years, may receive special consideration at some future time. In a physiological point of view, precocity in the plant or animal is little else than a monstrosity.

No doubt the public are very much deceived by the way the premiums are offered and awarded by our fairs. A box containing no more than ten pounds of raisins, which perhaps has cost ten dollars in time and money to prepare, secures the premium. Now, everybody *ought* to know that this little sample is no true representative of an entire crop, yet fancy prices are quickly offered for it, unsight and unseen, and the consuming public pay liberally for the temerity of the purchaser. I would suggest, as a protection to the public, that each exhibitor of raisins at a fair be prepared to sell his product by the sample on exhibition; that the premium raisins be the property of the society paying the premium, and retained for one year for public inspection; that the new beginner may have something of a guide in his first efforts at raisin producing, and the public as well as the individual thereby receive the benefit of accumulated experience. But first of all we must know what constitutes a raisin.

Poultry.

KEEP a few chickens. Fresh eggs are a household necessity. Keep more chickens and make some money, as there is a *sure* sixty-five per cent. profit, and often as high a profit as two hundred per cent. on investment, expenses and time.

The *Poultry News* (San Leandro, Cal.), Weston P. Truesdell, ed. and pub., the only poultry journal on this coast, is well adapted to our poultry raisers in California, is well gotten up and ably edited. Subscription price only $1 per year; sample copy ten cents. Send for it.

The *Poultry World*, Albany, N. Y., says the most profitable fowls that can be kept by breeders for marketing are full-bred birds of the Cochin, Brama, Plymouth Rock, Leghorn, Dorking and French varieties. It costs no more, after the first purchase, to keep a flock of any of these improved fowl than it does to harbor common or cross-breeds. If judiciously provided for and tended from the shell upward, as any fowl should be cared for, either of the larger breeds will make good eating poultry at the proper age, and the hens of any one kind will lay an abundance of eggs, take them as they average, through the year. The "improved" hens will in a season lay one third more eggs in number and of a larger size than will the "common." As broilers, the young cockerels of heavy breeds are fitted for this purpose at a much earlier age, and so far more valuable in this respect than are the less size or common varieties.

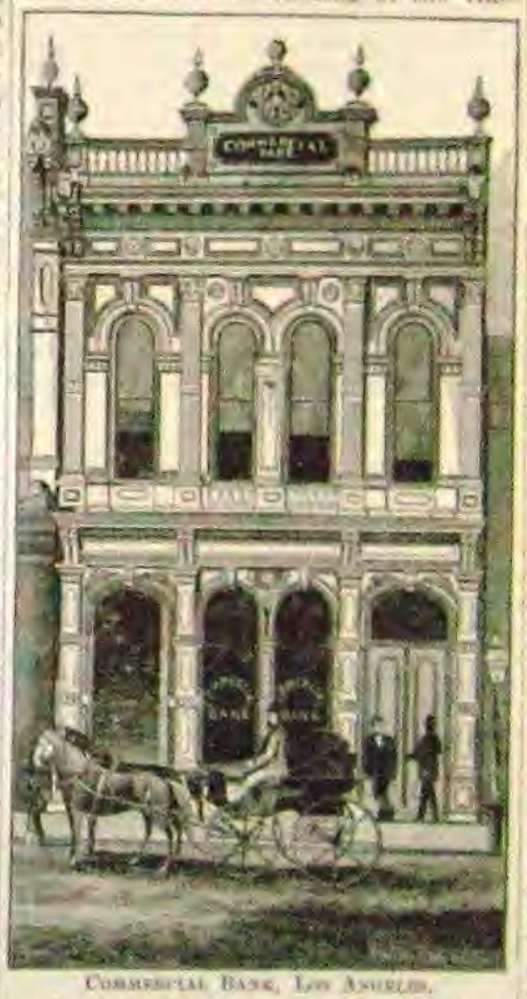
LOS ANGELES AT THE EXPOSITION.

By John H. Shields.

PASADENA.

THE year 1879, in raisin-making, is epochal to Pasadena. This colony of a brief past, great achievement, and future full of promise, is rapidly and successfully harmonizing within its limits the horticultural industries of the Italians and the Malagans, with the Italian and Malagan capacities of climate, so conspicuous in Pasadena. This colony turned the first leaf of its public chronicles as a raisin-producer at the Los Angeles Exposition, in October, 1879. Dr. O. H. Congar, of Pasadena, exhibited raisins produced there. The bloom on the raisins was perfect. They had the pulpy softness and freshness which one anxiously seeks, without finding, in the imported raisin. The Spanish raisin must be desiccated at the expense of pulpy softness and the freshest flavor, in order to reach America sound, through the saturated atmosphere of the Atlantic Ocean. The California raisin, to supply the now strongly probable future demand in Europe, for the same reason, must be desiccated at the expense of a quarter of its goodness. But Americans can have the California raisin without any such loss of the fruit perfection, with which the raisin-grape leaves the vine. Dr. Congar seems to have arrested the drying process at the exact point of compromise between the original goodness of the raisin-grape in its last day on the vine, and the keeping qualities as a raisin. There must, of course, be some degree of sacrifice of the absolute perfection with which the raisin quits the vine. The minimum sacrifice consistent with sufficient keeping qualities is the point—the point to dry to—the point of compromise. Dr. Congar, expressing greater confidence in my judgment of the raisin than is merited, asked my opinion of his raisins. I replied that long before I came to California, an ideal of the perfect raisin was in my mind; that I put this ideal on paper as an order to a New York house for the use of my family; that raisins were expressed to me from New York, very nearly realizing that ideal; that if I had a bunch of his (Dr. Congar's) raisins at the time I sent my written ideal as an order, I might have inclosed that bunch, as fully illustrating the order, with the single exception of the size; that the size of his raisins fell somewhat short of my ideal of a perfect raisin.

I may here add that Dr. Congar's raisins at the Exposition were somewhat below the average size of other California raisins on exhibition there. The deficiency of size is easily explained. Dr. Congar does not irrigate his vineyard. He is against irrigation upon principle and not for the want of irrigable land. He insists that his vines will acquire the properties of more enduring fruitfulness, and that his grapes are better in quality, without irrigation, than they would be with it. In proof, is the ready sale of Dr. Congar's raisins at the highest market quotations. It would seem, from the prices obtained, that the deficiency of size has its compensation in quality. In a subsequent conversation, in which Mr. J. de Barth Shorb participated, this gentleman gave it as his opinion of Dr. Congar's vines in particular, and of vineyards in general, that the fruit of the unirrigated vine would enlarge with the age of the vine; enlarge with the deeper penetration of the roots; a penetration to the depths, where moisture would be found, in compensation for the absence of it on and near the surface. If Mr. Shorb's position accords with results, thereupon opens some of the most important prospects of the vineyard in California. Among the prospects are the concurrence of sufficient size and superior qualities in the unirrigated grape; the economy of water and the broadening of the vine-



Commercial Bank, Los Angeles.

yard area by the millions of acres. I learn that Mr. L. J. Rose concurs with Mr. Shorb. These two gentlemen, as authorities on the subject of the vineyard, are unsurpassed in the United States. Lest this proposition be deemed excessive, it may be added, that to a thorough education in all the modern theories of grape culture, these gentlemen add a long experience in the development of their Los Angeles vineyards, upon a scale of magnificence notable even in California; and that their two independent establishments, in all these respects, and in the additional feature of wine-making, are as elaborate and complete as any in Europe for legitimate wine-making, and that Mr. Rose manufactures wine upon a scale surpassing anything of the kind west of Europe.

L. B. Clapp, of Pasadena, made a fine display of apples grown without irrigation, among which were a White Winter Pearmain, one foot in girth, which had the northern appearance of a long creeper. Mr. Clapp's display embraced the Winter Nellis pear 10½ inches in girth; two varieties of quinces and fine pomegranates. Jewett P. Keith exhibited Italian chestnuts, large and handsome. Mrs H. M. Rosenbaum exhibited beautiful cut flowers. M. Rosenbaum made a very creditable display of apples, figs and almonds. There was an exhibit of strawberry guava, for which I failed to identify the owner. I half suspected that M. Rosenbaum was the exhibitor. A. J. Davidson exhibited excellent almonds.

SAN FERNANDO.

Mrs. H. L. Shaug favored the sight-seers at the Exposition with a specimen of the Night Blooming Cereus. A. J. Crow exhibited nice dried peaches. Mr. Crow has made a notable success of peach growing. He sold tons of peaches in the market last summer, and many tons rotted for the want of a market. How long will the impeached sunshine of Los Angeles impeach the "get-up-and-get" of her citizens, for stopping short of canneries and dryers? The peach-craving world, with more gold than good peaches, echo "how long?" C. N. Wilson exhibited Egyptian corn and Angora fleece; the long silk mohair; translucent honey; and honey-comb, white and cunningly wrought within hollow spheres of glass, wrought there by the bee. Patten & Smith exhibited Australian wheat, as it came from the thresher. The golden sheaf on memorial spreads in San Fernando, is working a crown for the wheat king. C. Garnier exhibited a fleece of the French merino, a notable fine specimen.

SAN GABRIEL.

L. H. Titus, of San Gabriel, made a fine display of semi-tropical fruits. Among them the pomegranate. This fruit, the insignia of royalty in the orient, never appeared more royal than in the display made by Mr. Titus. One of his pomegranates was 14 inches in girth, and weighed 28 ounces, avoirdupois. It is probable that the pomegranate has a future little dreamed of here at present. They can be raised here in profusion. The great cities of the East would buy them. They are admirably adapted to the incidents of shipping long distances. Who will start a pomegranate boom?

EL MONTE—CASTOR BEANS AND FLAX.

Mr. Geo. H. Peck exhibited castor beans. Mr. Peck has done more than any other one man to arouse the county to the importance of raising castor beans and flaxseed. The yield of castor beans is from six hundred to a thousand pounds per acre, varying with the fertility and moisture of the soil. Mr. Peck says that with proper management the castor bean is more certain than most crops; is easily worked; two-year old boys are good pickers, and as such do the most expensive part of castor bean husbandry; the chances

of loss small, and a good margin of profit. Mr. Peck advocates flax culture. It may be sown in January. The light frosts of Los Angeles will not hurt it. W. T. Armstrong, of Salinas City, Monterey County, had flax to volunteer in December, and grow finely through the winter. It is colder there than here. Our mesa lands may be more profitably devoted to flax than to either wheat or barley. As much as two thousand pounds per acre may be raised. The near-ocean mesa lands are admirably adapted to flax culture. J. B. Reichard, of Azusa, Los Angeles County, once an experienced flax grower in Ohio, and now in California, thinks that this county, for several important reasons, outranks the Eastern States for the production of flaxseed. What is of the greatest moment, the cash market for flaxseed and castor beans is excellent and continuously so. Mr. Peck, for years, has cashed all that he could raise himself, and all that was offered by other farmers. He has been in the habit of making contracts for entire crops of castor beans and flaxseed, before seed were planted. He has always complied with his contracts. He is ready to make contracts for the next crop. No doubt Mr. Peck would pay coin for a crop of castor beans and flaxseed to the amount of hundreds of thousands of dollars. Mr. Peck is backed by the Pacific Oil and Lead Works at San Francisco.

DUARTE AND POMONA.

N. Beardslee, of Duarte, exhibited superior English walnuts. C. Meele, of Pomona, exhibited quinces, among which was one 13½ inches in girth; also the Golden Russet apple. G. V. D. Brand, of Pomona, exhibited the Virginia Black-eyed pea; millet, greatest girth of head, 9 inches, and 9 inches long; Egyptian corn, a fine specimen.

GOLD, SILVER AND COAL.

W. T. Lambie exhibited a collection of gold and silver ores. The Santiago Gold and Silver Mining Company made an interesting display of minerals. There is an important future before the silver region of Los Angeles County, represented by that exhibit. Col. J. J. Warner, the oldest American citizen of Los Angeles, and a personal cyclopedia of the antiquities of the county, with an unabridged appendix of things modern, worth knowing, is of the opinion that more of the precious metals yet remain in the hills and mountains of Los Angeles County, than have been yielded by California. This is very likely true, but it might cost a dollar a dollar to get it into the dollar, possibly more. Col. Warner does not say that it would not so cost. This, however, is an auspiciously open question.

There was coal on exhibition from an adjoining county, but none, I believe, from mines in Los Angeles.

In the laborious examination of almost everything at the Exposition, I was often in great perplexity as to the name of the exhibitor, and sometimes of the locality represented by the exhibit, on account of the loss or the transposition of exhibit cards. Any mistakes into which I was betrayed, will be corrected upon notification of the mistake.

I trust that for the next number of the HORTICULTURIST, I shall find time to prepare a review of the splendid displays made at the Exposition by Santa Barbara, Ventura, San Diego and San Bernardino Counties.

Apiary Department.

CONDUCTED BY S. LEVERING.

A LITTLE BEFORE WE BEGIN. An eccentric divine, in addressing his congregation, was in the habit of saying: "Brethren, we will say a little before we begin." In assuming the control of the Apicultural Department in the SEMI-TROPIC CALIFORNIA, we will say a little to our friends before we begin.

In the discharge of this duty we hope to make this department both beneficial and interesting to all who feel an interest in the science of apiculture. We shall aim to keep our readers posted as to all new improvements, and do all in our power to promote the best interests of this branch of industry.

The enterprising editors of the SEMI-TROPIC have very generously offered us facilities that will enable us to make this department far superior to any publication of the kind on this coast, and a welcome visitor to every apiary in the state.

It will be a matter of great interest to apiarists in different portions of the country to hear of each others' progress, prospects, etc., as well as improvements and matters pertaining to each others' mutual interest. We therefore cordially invite correspondence with this department. We hope our readers will not be backward in this matter.

THE APIARY FOR MARCH.

February and March are two very important months in the management of an apiary, more especially when the weather is as cool as it has been thus far. The past season was unusally disastrous to apicultural interests throughout the world, but more especially in Southern California; the cold winter has aided very materially in impoverishing the sweet homes of the little busy bee. We have examined many colonies and found them quite weak and almost destitute of honey, especially those that had not been fed. It is quite important that the condition of each colony should now be known, and where vigorous colonies are found with a good supply of honey, a comb from it should be exchanged for an empty comb of a weak colony that may have little or no honey. This will serve as a stimulant both to the queen and workers; she will lay more vigorously, as she will then have more bees to cover the eggs, as not so many will be required to go to the fields in search of supplies. When a colony is weak at this season of the year they require assistance, and more especially after the past disastrous season. In their present weak condition a portion of the bees must necessarily go to the fields for supplies when there are not enough left to keep up the necessary heat to hatch and rear the brood; hence they soon dwindle and die out. If top-boxes are upon the hives they should be removed, and a piece of cloth, thick paper, or two or three thicknesses of newspaper spread over the top of the brood chamber, and the cover put on or the top-box returned, and the entrance contracted so that but few bees can pass in and out at a time; this will confine the heat, facilitate the rearing of brood, and prevent robbing. The apiarist who will bestow this attention upon his bees will find himself in advance with a strong force to gather the early crop of honey when it comes.

We have placed our estimation of the loss of bees (up to willow bloom) this season at three fourths, leaving one fourth out of what there was last season to commence work this season. We regard this estimate rather low, if out of the way at all; many have lost all, while a large majority have lost from fifty to seventy-five per cent.

Capt. Gordon, of the Arusa, informs us that the mortality among his bees has been fearful; two hundred colonies have passed in their checks.

Some of the Los Angeles merchants, in buying honey, are disposed to deduct the weight of the cans. This we regard as unjust, as bee-men buy them often at round figures from the same men. It is not done elsewhere as far as we can learn.

Mr. H. D. McGeorge, who resides about forty miles west of Los Angeles on the coast, informs us that wild bees are quite numerous in the woods and rocks in his vicinity, and that he will capture from one hundred to one hundred and fifty colonies this season. Mr. B. Franklin, an apiarist in the Cahuenga mountains, will leave in a few days to assist him.

W. H. Hoge, of London, has been commissioned by the United States government for the purpose of investigating the foreign market for an outlet for American honey, and to report upon the same.

Bees, trees, fruits and flowers are natural associates; every apiarist should cultivate them.

The Los Angeles Bee Keepers' Association hold their annual election for officers the third Saturday in December. A heavy rain prevented any election last December, hence the old officers will hold over.

Los Angeles County will prove to the World this year, that she is a wheat growing county. It is estimated that there are 100,000 acres growing, and reported in excellent condition.

The Los Angeles Woolen Mills are run to their full capacity, with orders ahead that can not be filled for some time to come.

Plant some broom-corn, when you plant corn. There is some money in it.

THE Southern Pacific is fast extending her track of steel across the continent. Soon ocean and gulf will be bound together by strong ties, and the mighty iron horse will go thundering along the short cut across the continent. No snow, light grades, straight line, and quick time, it will unite East to West; and once open, will be the greatest highway, doing the most good of any other in the world.

When the last rail is laid, and the first train goes through connecting occident with orient, then will Southern California boom. That this country offers greater inducements to the emigrant than any other on the face of the globe none can deny who know whereof they speak.

The railroad fare from New York to Los Angeles is now only $45, on the third class or emigrant train, and as the Central Pacific Railroad Company have recently put on sleeping cars on this train, families will find it very comfortable traveling this way.

A LETTER WORTH READING.

VIEWS FROM A PRACTICAL STANDPOINT.

ANAHEIM, February 8, 1880.

SEMI-TROPIC CALIFORNIA.—The name of your paper seems almost a misnomer this year, visited as we have been by unusual frosts, and even snow; but as these remarkable visitations have been general all over the State, and as our supply of these unwelcome visitors has been moderate in proportion to other parts of the State, I suppose we have no right to complain. The snow seems to have no respect for persons or localities, and the much-lauded warm belt which it is claimed exists at a certain elevation above the low valleys on the hill sides all over the State had its white blanket of snow and its share of frost and ice, just like other places. But I am glad to be able to say that *Anaheim* and *Orange* had no snow and have had no severe frosts. On the morning after the snow storm the snow appeared on the tops of the hills seven miles north of Anaheim for the first time since 1855, and also on the foothills north of Orange, but no snow fell in or near either place. The lowest temperatures marked by a self-registering thermometer (*hung near the ground*) this season have been as follows: December 23, 30°; January 29, 29°; January 31, 28°; February 1, 29°. These are the only instances when it has fallen to freezing point or below. No damage has been done to either orange or lemon trees, and only a few tender shoots on lime trees have been nipped.

Persons seeking for land upon which to plant citrus fruits should bear in mind the fact that danger from frost is less in this part of the county than in any other place in Southern California. In addition to this remarkable advantage, we have a warm, moist and exceedingly fertile soil, adapted to the production of all kinds of fruits (semi-tropical and temperate), vines, and the whole range of farming crops, and that all of these varied productions can be grown on the same piece of land. A man who plants an orchard or a vineyard is not obliged to wait two or three years until his trees or vines bear fruit, but can raise crops and obtain an income from the part of his land not in plantation.

Our land possesses another all-important advantage. On most of our lands water is found at a depth of from six to ten feet from the surface, and on the same lands water for irrigation is certain to be obtained by boring artesian wells. Other lands are irrigable by ditches on the lands possessing "natural moisture." Plantations are always safe, as, if planted properly, the top root will extend itself down to perpetual moisture, and when this is the case, irrigation is not only not required, but the trees and vines, having at all times a sufficient supply of moisture, grow and perfect their fruit with a natural, healthy and steady growth.

With irrigation it is always a feast or a famine—too much or not enough water, and if from any cause the tree or vine does not get its water at the stated time, it gets a set-back which it may take a year to get over. Any plant which has this regular undeviating supply of moisture is unaffected by hot, dry winds or dry weather, and having perfected and solidified its wood by a steady and natural, and not by an unnatural and forced growth, is made less liable to be affected by frosts. Most of the old vineyards in Anaheim are irrigated once, twice, or sometimes three times a year. The consequence of this is that the roots, instead of penetrating deep in the soil in search of food and moisture, are matted near the surface, and naturally suffer if they from any cause do not get their usual supply of moisture. On the other hand, the later planted vineyards outside of the old settlement, which have been raised without irrigation, and are stronger growing and thriftier vines, bear better grapes and larger crops, and are covered with green leaves long after the leaves on the irrigated vines have dried up and fallen off. And there is another and most important fact which favors the non-irrigated vines. The roots being deep in the cold ground, the vines do not start so early in the spring as the irrigated vines, whose roots are near the surface and are more affected by the warmth of the sun, which does not reach the deep roots until later in the season.

Vines of the most delicate European varieties are perfectly hardy as regards winter frosts, but all vines are liable to have their tender shoots nipped when they commence to grow in the spring; and as the dangerous time occurs from the twenty-fifth of March to the tenth of April, if by any means the vines can be kept back until after the tenth of April, the crop in this section may be considered safe.

During the past ten years there have been two bad frosts in April in Anaheim. The crop in each case was almost entirely destroyed. As soon as the sun came out on the frosted vines they turned black and wilted; but on those occasions I noticed another fact, *that no vine that stood up four feet from the ground was frosted at all, nor was any trellised vine frosted*, although the frosted and non-frosted vines stood together and were exposed to the same conditions of temperature. One of the trellised vines had a tender shoot growing within a foot of the ground, but it was not frosted. The frosted vines grew in a solid bunch on the top of the vine stump, through which the air could not circulate; but the vines not frosted that were four feet high were growing in a similar bunch; so that I think that the difference in elevation secured the safety of the latter. The frost is undoubtedly worse close to the ground.

The vineyards of General Naglee, of San Jose, are in a low frosty valley, but his vines are trained to stakes from four to five feet high, which, I am informed, secures them from frost, and, judging from my previous experience, I am disposed to believe it. If so, the remedy against the only risk that affects our vineyards is simple and easy.

Very early or very late pruning undoubtedly prevents the vine from putting out so early; but suppose the frost should come a little later than usual, then the difference in the time of pruning would amount to nothing and would do no good, but if the staking up of the vines to an elevation of four to five feet should prove to be a security from frost, I would strongly advise its adoption.

In a country where land is as cheap as it is in California, one would suppose there would be no necessity for crowding too many vines on an acre of land; but I find that the same greediness of gain which causes men to plant one third or one fourth too many hills of corn on an acre of land, and which results in a large crop of stalks and not many ears, also induces them to plant their vines six and six and one half feet apart, which results in starving the vine and stunting its growth.

I am informed by a vineyardist of experience in Napa and Sonoma counties that most of the new vineyards there are planted eight feet apart each way, and that the vines so planted grow much more vigorously and bear more grapes than by the old style of planting closer, and what is very important, the vineyard is much easier to work, the spaces being wider, most of the plowing can be done by two horses and the work done more thoroughly. I notice here that the outside rows of vines, where the roots have room to spread, grow much more vigorously than those on the inside, which seem stunted in comparison.

As vine growing is about to become the most important agricultural interest in California, I think anything relating to this culture should be investigated and discussed. Respectfully,

WM. R. OLDS.

A large acreage of sugar beets is planted in Los Angeles County this spring; fair trial will be given them.

GRAPE CULTURE.

The San Gabriel Valley after the Rains—Mr. Rose Gives a Second Chapter on Vineyards—Useful Hints to Beginners—The Soils Best Adapted to the Vine—No Necessity for Irrigation—How to Plant Grape Cuttings.

SUNDAY morning, after the rain, again all is lovely. The rain has made a good season almost assured, and all is brightness and contentment. Even the air is washed out clear and pure. The land is covered in every part by the tender green of the new growing grass; flowers have their faces washed, and the rose, jasmine, heliotrope and geranium have a fresher and brighter look, and with a fresh fragrance perfume the air. Even the birds are animated by a new life, and flit in and out among the branches of the pepper trees, almost bursting their throats with their spring melodies. The sun shines brightly, the air is soft and balmy, and not a breath of wind is stirring; the bee hums lazily in the casement; the eagle soars slowly over Sierra Madre Villa, and even restless man partakes of the quiet and contentment all around him, and stops, while the smoke of his pipe makes ascending circles in the air, and feels that it is pleasant to be, and that this is a good land to live in. The higher peaks of the mountains, like San Gorgonio, in the San Jacinto range, ninety miles away, and "Baldy," nearer by, have their winter caps of snow, giving us winter pleasantly distant, while here the orange tree is loaded with its golden fruit, and the kitchen garden is in full growth. Here it is spring; there it is winter. Little do we realize the many advantages and blessings we are enjoying. The farmer here has all winter to plant, and all summer to reap, enabling him to accomplish twice the work and twice the production that he could anywhere outside of the Pacific Coast, and that with the least possible amount of sickness. Here every day brings with it to him renewed life and health.

These are facts that are nothing new to any one of us. We all know them if we but stop to think. Many of us may be hard pressed for money; we may have been too sanguine, and have gone too fast; we may be in present difficulties; but, if the past lessons are heeded, a bright future is all before us, and that the future of our county is very bright is to me a certainty. Never has the immediate prospect for the southern counties been so full of promise. The "boom" seems to be here. In a year we will probably have a new railroad; certainly railroad connections. Already we are beginning to feel the trade that is coming to us from Arizona, and each mile of new road increases it. Arizona, New Mexico and Colorado are countries of limited agricultural resources, but a large population, by reason of their mines, will be consumers. Southern California is great in agricultural resources, and it is the nearest place for them to get their supplies. The railroad company have given us a favorable tariff of freights. In the near future our harbor will be improved, so that it will be sufficient for all our wants. We will have rail and ship connection and do away with lighterage, in all of which the railroad company have kindly promised to aid us. Then we will have direct shipping to all countries. We will be on the free highway of the world's commerce. We will have all that a country can have. With these advantages, with a most fertile soil and a climate unsurpassed in the world, what is to prevent us from being the richest and the happiest people on the globe?

But I am reminded that you wished me to write about the grape, and that I am spinning out these pleasing prospects and self-evident facts too long. I turn with pleasure to that subject, not that I believe I will say much that is new. Many of my confreres who may read this may smile at the many details as being an old story to them, yet a few may find something to think about, and to the beginner it will be some guide by which he can profit; for, if he follows the directions given, he will have some assurance that this same mode has raised vineyards. We have thousands of acres of land which will raise grapes in paying quantities without irrigation, and make pleasant and happy homes where are now wastes, covered by chapparal, sagebrush, cactus, etc.; and I believe that these very lands, that are now supposed to be of no value, are especially adapted for the grape, and that, too, without irrigation. I have cleared and planted such a piece of land, and up to this date I have never seen a vineyard that made such growth or produced so well, and without irrigation while planting or since. Most of this vineyard is only one and two years old, yet I have a small corner of such land which is fifteen years old, and these vines have borne more, are larger and of a thriftier growth than other vines adjoining on apparently richer land—land that grew good grass, while the sandy, or almost sand, grew nothing but brush and elder bushes, with now and then a sycamore tree.

EXPOSURE OF A VINEYARD.

In this land of perpetual sunshine a level piece of land is preferable; and, if a hillside, a northern exposure is preferable to a southern. A level piece of land will absorb nearly all the water that falls as rain, while a slope will shed it. Where irrigation is practiced, water will wash all the finer particles of soil—the valuable portions—away, whereas, the nearer a level, the more easily it will be flooded. Nearly all beginners in planting in this are almost sure to make a mistake, for they have learned that the finest vineyards of Europe and the East are grown on hillsides and southern exposures, but they do not remember that in this country the conditions of rain and sunshine are entirely changed. Here we have a lack of water, but an abundant supply of warmth. There a good season consists in a dry and warm summer, here in a wet season. A hillside is a necessity there, for it sheds the rains and sooner drains its water, which is taken up by the soil during the rain, and every favorable condition to get all the warmth the sunshine can furnish has to be taken advantage of; whilst here, if grapes are not ripe in September they can hang on the vine until December.

WHAT KIND OF SOIL IS THE MOST SUITABLE.

Life has as yet been too short to speak about this subject with certainty, and in a century from now opinions will still have to be modified. My experience is confined to my immediate neighborhood; and, even in this limited space, there have been trials only to a limited extent, for a soil that may suit one grape may be entirely unfit for another. There are, however, some general facts that are safe to accept. A finely divided sandy soil will absorb water readily and is easily worked. It will, too, retain water in summer much better than adobe or clay, or a coarse, porous soil. Adobe and clay soils are good for the raising of such crops as grow in the winter, like grasses, wheat, barley, and oats; sandy soils, on the other hand, are adapted for summer growing products, like corn, melons, pumpkins, fruit trees, grape vines, and not suited to grasses. The first, in summer, with heat, shrinks and cracks. It is in a favorable condition to evaporate its water easily; for a solid, hard earth will sooner lose its water than a soft, mellow surface, as can be seen by our roads, which always dry up sooner than the land on either side. The condition of its capillary attraction, by the spaces between the particles of its soil being close together, are favorable for drawing the water in warm weather out of its soil; whereas, a sandy soil, by its porosity, has less capillary power to draw the water to the surface and more capacity to take up air in daytime which, by the cold at night, is condensed into water, when more air is again taken up to go through the same changes. Man can do much to assist in retaining water in a soil by cultivation—stirring the soil. Even a very light soil will, by rains, dew, gravitation, and other forces of nature, continually form a crust on top, harden, presenting favorable conditions for shedding rain and also for evaporation. By plowing this is counteracted, and the oftener this is done, the more moisture will be retained and added, by giving free ingress to the air and cutting off evaporation; for a loose soil, if only a few inches on top, acts as a mulch. It cuts off communication with the lower strata of soil; it acts like a lamp that has its wick severed above the oil; it stops capillary connection with that below. Such a soil can be easily kept in such condition by cultivating, say once a month, with a minimum of labor; but an adobe or clay soil is very difficult to work; it breaks up in clods, giving more surface for wind and sun to act upon and dry; and, if broken up by beating the clods, makes an almost endless task for the first rain to pack together again. Cultivation should be continued during the entire Summer. The ground may be entirely

without moisture on the surface; it may be dry to such a depth that weeds do no sprout any more, and every object apparently wanting for stirring the ground, yet you will find that your grape vines will show by their renewed vigor and growth after cultivation, that it has not been labor lost. Of course this continued cultivation is only possible in vineyards the first and second years of their growth. When older, they early in the season cover the ground so that no horse can get through them, and by shading the ground, they prevent much of the evaporation and stop weed growth; but, even with old vines, cultivation should be kept up as long as possible.

Cultivation should, too, be thorough and continued as long as any weeds make their appearance, for all growth is at the expense of water. Grass or weeds, while making an earlier growth, take up the water in your soil by their roots and evaporate it by their leaves more rapidly than your vines, for they run through to their maturity earlier, and many of them evaporate and use more water. At any rate, whatever you allow them to appropriate from your soil is lost to the grape.

For some reasons it is more satisfactory to root grapes in nursery the first year, for there, even in a dry season, they can be taken care of and made to grow by watering them; and, when once rooted, they can be planted out in vineyard form with a very small per cent. of loss, even in a dry season, without irrigation. On the other hand, if planted at once in the land which they are to occupy there is a gain in size. As between vines planted in nursery and those replanted the second year in vineyard, and cuttings planted at once in vineyard, the last will have perhaps six months the best of size at the end of two years. The expenses for the two years are perhaps less to those planting in nursery. When there is sufficient time to get the ground in good order then it will probably be better to plant at once in vineyard. My mode of planting is with the crowbar, sinking them, say 15 inches deep. Perhaps 12 inches would be even better. Many persons plant much deeper, but I think it is a mistaken idea. Their theory is the deeper the more moisture; but I think it will be found that, when your soil is dry 12 inches, it is dry altogether, and with proper cultivation it will not be dry, no matter how little water you may have had. The most natural way for a cutting to throw out roots is at the bottom, especially if it has been cut smooth just below a bud. To enable it to throw out roots, however, at the bottom, it must not be planted so deep as to be out of the influence of air and warmth. This is why twelve or fifteen inches is better than a greater depth.

Some plant with a spade, but it is attended with more labor, and I can see no advantage. The important point to see to is, however, that the soil presses around every part of the cutting which is under ground and especially at the bottom. This can be easily done with the crowbar. There is another point, namely, to soak your cuttings either in very wet ground or in water, a few days before planting. The most important point in starting a vineyard is to get them started to grow. When this is once accomplished the most difficult problem is solved, for after that, with such cultivation as I have indicated, your vineyard will be a fact accomplished and make a fine growth even in a dry season without irrigation. Of course, it must have protection from rabbits, gophers, squirrels, or anything else that will destroy its leaves, for if these are eaten off it will surely die.

Six feet each way, I think a good distance apart to plant vines for wine making; whereas, for raisin culture, vines are now planted farther apart. After having planted the cuttings, I cut them all back, say, to six inches above the ground; for the less above ground the more readily will they grow, there being less evaporation from the cutting. The ground is prepared by breaking it up, say, 10 inches deep, the deeper the better, after which it is harrowed, when it is ready for planting. When the planting is done, then it is again plowed, beginning in the center between two rows with a back furrow, which throws the soil away from the vine, and plowing as close to the cutting as possible without disturbing it. After this, for that year, if the ground is kind to work, all after work can be done with an ordinary one-horse cultivator.

CAN GRAPES BE GROWN WITHOUT IRRIGATION?

This can be answered with certainty, yes. Some soils are more favorable than others, but every soil that with rain will grow anything, will grow the grape vines without irrigation, and produce grapes. In observing different plants which grow, we find a great difference in the quantity of water required by different varieties or species of vegetable life. Though a product be almost entirely composed of water, is no evidence that such fruit or plant requires much water. For instance, many kinds of cacti will only grow where the soil is almost devoid of moisture, with much heat, as can be seen on the deserts of Arizona and Mexico, yet the cactus is almost entirely water. The watermelon does much better and is much richer in saccharine matter where grown with little water. On the other hand, the rush, which only grows in swamps, is almost devoid, even while it is growing in water, of moisture, and is used by the cooper for the joints in his barrels to make them water tight. Again, all will have observed that in our dry plains, after the grasses are withered and dead, and the soil is apparently dry, a new order of vegetation springs up, grows, blooms, forms seeds and dies. From this we see that different plants have different natures in regard to their water wants. The grape is one of those plants that does not require the excess of water; or rather, it can exist and grow with a small water supply, and can be cultivated profitably, for a time; how long will depend on the kind of soil, whether a soil is rich in such plant food as the grape requires. I have a vineyard of 20 acres, which is on a side hill, southern exposure, and very gravelly, dry soil. There is no locality on all of my lands drier and sooner dried out. It formerly, when in a wild state, grew sparingly pin grass of a very stunted growth. All this land is above my irrigating ditch, so that even if I had a desire to irrigate it, it would be impossible to do so. This vineyard is now about 10 years old, and since the second year has produced a fair crop of grapes; and, even two years ago, when we had only three inches of rain, it yet produced more than a half crop for that land. This hillside is planted in the Blanc Elba, Zinfandel and Berger varieties of grape. Now I cannot conceive of a more severe test, and it is worth all the theorizing that could be done in a month. Many persons say to me that for young vines, especially for the first year, water is necessary. Now, the reverse is true. When once a grape cutting begins to put forth its leaves, when roots have formed, and both proceed simultaneously, then a very small quantity of water is necessary to maintain its growth. The root of the vine elongates very rapidly, and if water were scarce at 12 inches in depth, it would soon reach out 24 inches more, if the water were there for its wants. Plants require water in proportion to their size and the amount of fruit (seed) to mature; or rather, more exactly, in proportion to the size and quantity of their leaves, for these are its surfaces to gather plant food in the form of gases from the atmosphere and to evaporate water. All this water which is evaporated in warm days is brought into the leaves from the soil by its roots. It is easily understood from this that a plant that has many leaves has much surface for evaporation. A small plant, therefore, requires a little water; a large one in proportion to its size; whereas, in a vineyard, a small vine occupies the same space (six feet square) as a larger one, and the soil can only give up what it has received, and has been kept there by keeping the soil in a favorable condition to retain its water, namely, cultivation. Agricultural chemistry is becoming a more important science every day, and many scientists are now devoting their lives to its study, and much benefit is now derived from them by the "book farmer."

By reading the results of the experiments as to how plants grow and feed, by such men as S. W. Johnson, Professor of Agricultural Chemistry of Yale College, but mostly by the Germans, who have many experimental stations for the employment of many chemists engaged in theoretical investigations of manures, the analysis of soils, and how to grow various plants and crops, it is found that plants receive from 95 to 99 per cent. of all their food from the atmosphere; and consequently, only from 1 to 5 per cent. from the soil; that the conditions of the atmosphere are substantially the same all over the world, and cannot be changed. For this reason man has no control over that part, but only what is received from the soil. The soil furnishes, although so small a part, yet such indispensable ingredients as water, potash, lime, magnesia,

phosphoric acid, sulphuric acid and some other acids, but these may be considered the essentials.

Plants have no power (certainly not in any beneficial quantity) to utilize water, or to take up water, in any other way than by their roots. Roots have the power to absorb water, not only by their main lengthwise, but their entire surface, and the inorganic salts (specifically of the plants) are taken up by the water in solution, and in combination with gases of the atmosphere, mainly carbonic acid, making organic structures of the plants. If water is supplied in insufficient quantity, the plant will languish, make small growth, produce a short crop, although the proportion of seed (grape in the vine) will be large in proportion to the growth. If water is too abundant, there will be much growth of wood and a comparatively small crop of seed. This brings us to the subject,

IS IRRIGATION NECESSARY?

Which must be answered in the affirmative, for we have now and then such dry seasons that the vine produces only small crops, although it will live. By irrigation we can add every necessary to an abundant crop, for water, too, adds fertility, and we have the evidence here in our county of the grape vine 100 years old, yet as vigorous and prolific a bearer as can be found at any younger age. It is contended by many that water adds to the fertility of the soil (for irrigable soils demand an advance of one-six) by reason of the sediment which it carries. This is undoubtedly true in some localities, like the Nile, where floods cover fertile bottoms, gathering richness from the rich mud that they pass over. So, too, of the Mississippi, and other streams of fertile surroundings, but here our stations come from the sterile mountains and beds of dry sand, and they cannot add fertilizers by depositing that which has no fertility. Clear well and spring water are fertilizers, for it is proven that they contain, in their necessarily pure, all the mineral and salt substances which are in the soil or rock by which they are surrounded, for water dissolves all these substances, whereas, rain, being the product of evaporation, pure water is entirely free from lime, potash, magnesia, etc., and can only gather a small percentage of these substances in its brief period and contact with the soil. Thus well water has all the necessary elements of plant life has been proven by many, wheat and oats having been grown by many well water, often renewed, instead of soil, for their roots, and these plants finished every stage of development from sprouting, growing leaves and stalks and a normal quantity of seed or grain. To give a detailed description of this water culture would occupy too much space.

Soil is a mechanical necessity to a plant, to hold it in a fixed, upright condition. It is also a storehouse for its sub and sub-products. Spring and well water can supply all deficiencies, if any are in the soil, by what is lost in solution, and, too, by the solvent power. Irrigation can be considered, for can make the grape watery, insipid and inferior for wine. Water irrigation will probably give us every branch that water can give, and there are very few places but what could have water irrigation. As my neighbor, Gen. Stoneman, says, "Use your head for your resources." It will cost doubling in the making. It is your work, which will bring the fruit of the vine when you want water, as it is needed.

I have shown, from ten years experience, that my vineyard, which has never been irrigated, has yielded grapes all that time in paying quantities. It is yet healthy and productive. It is equally sure, to my mind, that, with water irrigation, it would have yielded larger crops, but who can say when the time may come that by reason of some element of the grape vine being exhausted it will not go into a decline, and how long that time may be. Such is the case in some vineyards in Sonoma, and appearing to be coming necessary. It is believed by many that they have there the phylloxera, while others believe that the dead and diseased portion of some of these vines is simply the result of the wearing out of the soil, of the exhaustion of some necessary elements of their life. It is said, too, that the phylloxera here not exist where irrigation is practiced.

That for the first years of the growth of a vineyard irrigation is of no avail, only being additional labor, I feel sure; but that, when producing large crops, irrigation is a great advantage, is also equally certain. There are some compensations and compensations about this whole subject, however. Irrigation makes much work, and a smaller crop may pay better than a larger one. The quality of the grapes may be better in the case of vines not irrigated, and, by reason of our soils being more fertile in grape vine food than Sonoma and irrigated vine lands, and being rich in potash, they may not wear out, but continue healthy and vigorous for many years.

EXPERIENCE OF OTHERS.

Col. M. Keller, one day, on our streets, pleasantly said to the writer: "It is well enough for you, who have a homestead, to make all the different kinds of wine for your sales, but the Mission vine is good enough for the general trade, because this is a country where we can make wines of generous strength, and sweet wines and branches, and the Mission vine is as good for that purpose." I very highly value Col. Keller's opinion, and I have learned much at various times, when conversing with him on almost every subject, but on this grape question there are some differences between us. In my to-day to the last time, my experiments have been unsuccessful, in getting, perhaps, therefore, where he did not, or in any quantity have been in bearing, at any rate. I have got some few varieties of grapes which have done all he did, and some particulars to the preference than the Mission, if for no other reason than this, that they produce at least 50 per cent. more grapes to the acre. I think, also, that they are more valuable for other reasons. The Mission grape is one which possesses many good qualities, and is, perhaps, better than some varieties of the so-called foreign grapes, for it is found, after years of trial, that out of one hundred varieties, there is, perhaps, only one worthy of cultivation, but this has many good qualities for special wines which the Mission does not have. Was there an increased demand for angelica and port, then, perhaps, nothing further would be wanted than the Mission grape. It, too, makes a very fine brandy; yet I believe a better angelica, port or brandy can be made from other grapes than the Mission. In these three products, as I said before, the Mission excels and leaves little to be desired; but the demand for these articles is limited, and our trade—yes, twenty-nine hundredths—of the wine trade are for wines, sherry and hocks. Now, the Mission grape for wines as very inferior, and will not sell for more than half as much, with these wines, as Zinfandel, Black Flora, Burger, Riesling, Crabella, and other wines made from foreign grapes. If this is so, then the only question remaining is, are we growing these grapes? I can with certainty say yes.

WINES OF THE MISSION.

I have made both red and white wine from foreign and Mission grapes, and Black Flora, Zinfandel and Burger will make at least fifty per cent. more wine by the acre than the Mission grape; and in our trade in New York, Chicago and Boston, the wines made from the foreign grapes have brought, to date, if sold, at least twice the price per gallon. Now, this is the real test—the money test—and there is no going behind that. Besides that, the wine made from these foreign grapes keep sound much better, with less care, and stand transportation better. It is almost as unprofitable to keep a Mission grape vine as wine for three years old and we have it yet sour.

If we had a specialty in wines, which we have not, and sufficient demand for that specialty, then it might be to confine ourselves to that, but it would be "all our eggs in one basket again." If, however, we can make all kinds of wine, or even many kinds of wine, of good quality, it will be all better. We have been a supplying for our small wines, but go into the markets where wines are brought in quantities, and say, "I have some kinds of a kind," then you will be asked where you are from, and when told San Leandro, you will be cut up, "Why, you can't make good dry table wines there. Napa and Sonoma are the places for dry wines." The only reason for this idea arises from the fact that Sonoma and Napa were settled largely by Germans and other foreigners, who planted foreign vines, Sonoma especially being much in Russian hands, and, consequently, they made a light wine and sold it, while here we make up the residents of immigrations, where we found our Missions and old vineyards with but one variety of the grape, viz., the Mission. This grape has superior many good qualities, for was it not the best which grape we had our forefathers in it was so rich and so luscious in the taste, but it not follows that it would make the best wine? This was my notion for a time, and, when I saw and tasted the Zin-

hooded, I could not for a moment believe it the equal of the Mission. For some one suggested that the best wines were made from cross-pollen, and not the best mixing pollen. There are those who contend that this climate is too warm to make a light wine. Let me say to those that you can give your grapes earlier, just there before they are over ripe, and you will have more tartaric acid and bouquet for your wines. Picking the Mission grapes before they are fully matured makes a better dry wine than picking later. There is something peculiar about the Mission grape when made into a dry wine. It has a peculiar taste and flavor, which is nominated "grassy taste," and the eyes and sweeter the grape the more doubtful is this taste and smell. It is a misnomer, for the grassy has nothing to do with it, but it is a peculiarity which belongs to the Mission grape and may be called its aroma, if a disagreeable smell can be called an aroma. Why this is so, whether it is because the wine matures so little tartaric acid, or for some other reason, I know not. It is a fact, however, that every variety of grape has some peculiar aroma of its own, in some cases a very pleasant one, and, it would seem, in some otherwise.

Now, in making sweet wine, there is very little, and often no fermentation at all. Fermentation is elegant, and then we have no sickly taste, and this is why the Mission sweet wine is good. The degree of fermentation can be told with certainty by the pressure of sugar or lack of this peculiar smell. All this goes to show that the Mission grape is not adapted to the making of fine light dry wine.

That we can make a fine light dry wine, the equal of that of Burgundy or any other place, is to me a certainty, for I have said it side by side with their products, I have had actual comparisons with them among themselves and some off, by their own admission, with honors even.

It is with much hesitation that I write this letter. In fact, the silence I put it off, for two positive I because of my humble. It will always be well for the reader to remember that what I have said, and what follows, is true and genuine only in this locality; and grapes that would be of the best quality for wine-making and bottle-fermen on the dry sylvanite, like those of my locality, may be entirely different, and not neither, to low and wet localities. With the present demand and short supply, these questions will and be appreciated and good for, and the Mission grape is well known and tried in all kinds of localities. For me it has been enough that other lands, and I will not plant my lands. Yet I do not wish to influence others, who have different lands. I give you my experience of another years. These years should teach something for the general good, and could I begin these years again, with my present knowledge, it would be worth several hundred thousand dollars to me. The general outlook for the wine and grape industry is very bright, brighter than at any other period of California's history. Our wines are being recognized as equal to the favored grape productions of any country, and we have a country whose soil of the best is better adapted to grapes than any other purpose, with a sure and ample and to begin with, whereas France and Spain, and every foreign country, are on the decline in production, through the greatest of all pests, the phylloxera, which threatens to exterminate the whole industry, while we are getting ready to take their places. Right here I would most urgently caution all persons from importing grape cuttings from Europe or Asia, for the disease is there, and if introduced here, it would be the greatest calamity that could befall our industry. There is a belief by many that the phylloxera are only said where the soil has been exhausted of some necessary element of fertility to the grape. They find that all points so far have been some substance which is a fertilizer to the vine. The special aversion of the grape vine to potash, and this is abundant in all our lands in Los Angeles County. We have only got to look at many of our low lands, where it has been washed from the uplands, to see that there is a superabundance of alkali.

I will now give you a description of some few varieties of grapes which I have grown for some years, and which have special adaptabilities for special kinds of wine, all being heavy producers. They will, too, have passport from the Monks, and opening early, they lengthen out the season for wine making, which is no item of small importance to itself.

WHITE WINE.

Burdoux medium length and size, short-jointed and about as compact as the Mission. Berries round, inclined to some roughness to coat. Skin thin, dark green, with heavy bloom. Juice colorless and pleasant, and a pigment forward table grape.

It is a vigorous grower, and the young shoot has a very clean, glossy, red look, which distinguishes it even at a distance. It is a regular and heavy bearer, free from all diseases, and standing drouth remarkably well. It makes a white wine of some body, perhaps in that respect similar to the Riesling, but carries two years better, and is much like the celebrated Hock "Lieblingsmilch" of the Germans. It is a white wine of the light and bouquet and quality, and is admired and as a favorite with every white wine drinker. It is pronounced the equal by all German connoisseurs, of the better qualities of Rhine wine, and it is believed by many of them, that, if shipped to Germany, it would command a sufficient price to pay for packing and shipping. It will, too, make a brandy of the highest bouquet.

This grape was introduced by Emil Kellet (now dead), of Anaheim, who brought it from Germany. He gave me a small lot of cuttings which, from year to year, I increased, until now it is the leading variety in my vineyard. It has, too, been tried for some years in my neighborhood, and all who have planted it join in the praise for thrift and productiveness.

It makes a red green wine, which, however, is inferior, yet which is better than the Mission red wine. Since Mr. Kellet's death this grape has been lost sight of and is scarcely known there.

MISSIONS.

Bunches generally nearly equally divided in two long shoulders, making a medium size cluster, with the berries so compact that it forms a stiff cluster of grapes. Berries medium size, round, black, with much bloom, quite acid and with the bitter taste, but it is probably the most popular wine grape now in California, especially for a light table wine. It is a thrifty grower, yet never makes a large vine, and is a very heavy bearer. It belongs to the Franciscan family, and was introduced by the late Col. Hamilton from Monterey.

It makes a light wine, picked when not over ripe, both white and red, with the highest bouquet. The white wine is much used in the manufacture of the best Champagne, and the red wine has as yet no equal in this State, and take it as a general wine, made in large quantities, without fancy manipulations or regard to another locality, it has perhaps no superior anywhere.

PEDRO.

Bunches long, large shouldered and very compact, berries round, late size, skin thin, greenish yellow, with some bloom. Juice acid and the pretest table grapes as yet tried by me, of all the foreign grapes. It is a vigorous grower, and the leaves are large with a white cotton down on the under side. I believe it to be the hardiest of all the grapes, and thrift is marking the productions of the Mission. It is however, a matter of doubt with me whether it would do on low localities, for the bunches being so compact, in wet places it would be almost sure to rot and mildew. It makes, in my mind, the most pleasant light table wine in California, being more of the character of German Hocks than any other wine. This wine is used one third, and two thirds fortified, to make the best Sherry's whatever. It, I believe, is especially adapted for this country, for our table lands. It was introduced by Kimberlin from Germany, and Burger is the German name. I am informed by the better that it is the same grape as that known in France as Folle Blanche, but it is identical with the description of that grape there. The Folle Blanche is used in France almost entirely as a brandy grape, making the celebrated Cognac. It has too much acidity, tart, and bitter, in consequence, to make a fine table wine, although with compounded sweetness, the grape makes a fair product, and makes a wine, that for a light wine for daily drinking, has no equal in my taste. Too shows that we can only find by experimenting what grape is best for our localities, but when may be mentioned for a red, and brandy, in one dry and warm climate will give entirely different results.

BURGUNDY.

General Naglee, of San José, introduced from France the Charbonneux and Trousseau. These are mixed together and both belong to the Pineau family of grapes. Here in California they have acquired the general name of Burgundy, probably from the fact that they come from that district, and are used to make that celebrated wine. The two varieties of grapes are so much alike in wood, foliage, and fruit that I, for a long time, believed them to be one variety, until some years ago, the bees taught me the difference between them, for they would make their attack on one vine and another vine by its side they would not touch. I then found, by tasting, one much sweeter than the other. The grapes of either are small, very black, small bunches; the leaf but little lobed or serrated, and round, much like some of our wild grapes, grown in this neighborhood. It has a great many bunches and is a heavy bearer. Gen. Naglee assured me that the year I was there they had averaged thirty-three pounds to the vine, and it is from this grape that he makes his best brandy. He also told me it made a very superior black (he named it) wine. I have not tried it sufficiently here to speak with certainty about the quality of the wine, but I know it is a heavy bearer and believe it will make the best heavy red wine (Burgundy) in the state. As yet it is not generally introduced in this state, it being confined to San José and Santa Clara county, but such wine as has reached the San Francisco market has been pronounced the best red wine in the state. I have not had it long enough, or in sufficient quantity to make wine from it, except in an experimental way. I believe in it. It is a fair eating grape.

I could add Muscat of Alexandria, which, I am inclined to think, will make a very popular brandy, and West St. Peter's, which is said to be the best sherry grape as yet tried in California. However, this paper is already much longer than I intended, and I will close for the present.

L. J. ROSE.

It is pleasant to know that some of our Los Angeles county wines are becoming noted for exceptional excellence. Those which for some years past have been manufactured by Mr. L. J. Rose from the Blaue Elba grape are attracting the most favorable attention of connoisseurs. The fact is that they promise to equal any wine of the kind made on the footstool. Many and many a confiding individual pays $2, $2.50 and $3 a bottle for wines which are really very much inferior to the low-priced vintages of our San Gabriel vineyardist. This extravagant figure is paid because the inferior wine happens to be made on the Rhine. We have never been intimidated out of our belief that the exceptionally genial sun and rich soil of California will be recorded in wines and brandies equal in bouquet, flavor, and other valuable qualities, to those made in any other quarter of the world.—*L. A. Herald.*

Plant grape cuttings.

Climate.

WAR DEPARTMENT—SIGNAL SERVICE U. S. ARMY.
Local Observations. Los Angeles, Cal., January, 1880.
Highest Barometer, 30.304; date, Jan. 31.
Lowest Barometer, 29.692; date, Jan. 28.
Monthly range of Barometer, 0.612.
Highest Temperature, 76.0; date, Jan. 17.
Lowest Temperature, 30.0; date, Jan. 29.
Monthly range of Temperature, 46.0.
Greatest daily range of Temperature, 31.5 deg.; date, Jan. 15.
Lowest daily range of Temperature, 13.0 deg.; date, Jan. 29.
Mean of Maximum Temperature, 63.8 deg.
Mean of Minimum Temperature, 41.7 deg.
Mean daily range of Temperature, 22.1 deg.
Total rainfall, 1.33 inches.
Prevailing wind, N.
Maximum velocity of wind and direction, 21 miles, NE.; date, Jan. 27.
Number of cloudy days on which rain fell, 1.
Number of cloudy days on which no rain fell, 0.
Total number of days on which rain fell, 5.
Dates of frost, Jan. 1, 27, 28, 29, 30, 31.

J. M. FRANTZ,
Sergeant Signal Corps U. S. Army.
Station: Los Angeles, Cal.
Date: February 1, 1880.

Notwithstanding the unusual cold weather for Southern California, as shown in the above signal service report, we congratulate ourselves "that it has not been worse."

No special damage to report, unless it is in places where the limes have suffered from the frost.

The beautiful snow was enjoyed by the natives, who had never seen snow before. An enterprising correspondent succeeded in gathering together a snow-ball as large as one of the largest Winter Pearmain apples exhibited at the fair.

A great many people from the East are here, spending the winter; all say they are satisfied with what has been said in praise of the salubrious climate of Southern California.

Ex-governor Fenton, of New York, a gentleman of extensive travel in the various countries of the world, expresses himself as satisfied that no other climate in the world equals that of ours.

EUCALYPTUS AS FUEL.—Blue gum trees set out 14 feet apart will grow 225 to the acre. Planted near the house, barn, etc., they will form shade and protection from the winds. At three to four years they can be cut for fuel, each tree supplying at least three days' wood for a family. These trees, when cut off, grow from the stump with greater vigor than a new plant. Two acres planted in this way will supply the family fuel. Ten acres in blue gum, planted in the hills of Alameda County, at the end of seven years, netted the grower $1,190, and he left 1,000 of the largest and best trees standing, that will be fit for manufacturing purposes in a few years, and bring as much more net cash. If it pays so well in Alameda County, it will more than pay in Los Angeles. Lands can be had cheap on which trees grow all the year, and make a much greater growth in the same length of time.

FRUIT DRYING.

The drying of fruit should become with us an extensive and profitable business. The demand last year far exceeded the supply, large orders for dried peaches and other fruits being received which could not be filled.

The superior excellence of our fruits commands for them an extra price in the Eastern markets, should a surplus be left after supplying the increasing demand from Arizona and the fruitless country east. Increased facilities of many kinds have been contrived to assist in the production of extra supplies of dried fruits.

On this page will be found a cut of the Plummer Fruit and Vegetable Dryer. Among its many competitors we know of none which recommends itself as much as this. It is durable, simple, cheap. Fruit prepared by it has gained an enviable reputation, receiving the highest award at the Paris Exposition, and having quicker sale than that prepared by other methods. While sun-dried apples sell at the East at four cents per pound, those dried by evaporation are quoted at fifteen cents.

Drying must necessarily remain the popular way of preserving fruit, being of less bulk, more open to inspection, and convenient in every way. Machine-dried fruits are free from the dust, worms and flies which make the ordinary sun-dried so objectionable, and the saving of time and trouble by the shorter process will clear the price of a machine in one year, to say nothing of a higher price for the goods.

In commending the Plummer we do so understandingly, and we can highly recommend and indorse the agents, Messrs. Ogilvie & Eams, whose advertisement appears in another part of this paper.

GUIDE TO ORANGE CULTURE.—We have received from Messrs. E. A. & A. H. Manville, nurserymen, of Lake George, Florida, a copy of their "New Guide to Orange Culture," which they send for ten cents, post-paid. It is a neat pamphlet treating of the best methods of culture under Florida conditions of soil, climate, etc. It classifies a dozen species of the citrus, and describes some 55 varieties as propagated by them; the information it contains will be of interest and value to California growers.

The April number will contain a number of fine illustrations, and a complete guide as to "How, and when to go to California, giving routes, rates, and general information to travelers, and immigrants."

E. GERMAIN,
WHOLESALE COMMISSION MERCHANT,

For the sale and purchase of all kinds of

Produce and Merchandise.

OFFICE AND WAREHOUSE:

28 Main Street, Los Angeles, Cal.

Consignments of every description of Country Produce solicited. Advances made on approved shipments. I execute orders at lowest prices for Green and Dried Fruits, Dairy Produce, Groceries, Provisions, Wines and Brandies, Honey, and everything produced in this market.

Sole Agent for Star Dairy Cheese.

DRUGS AND CHEMICALS.

The largest stock of Drugs, Chemicals, Patent Medicines, Perfumeries, Toilet articles in Southern California, at the very lowest possible prices.

Agents for Humphrey's Homeopathic Specifics and Holman's Liver Pad.

PRESCRIPTIONS A SPECIALTY.

Put up at all hours of the day and night.

HEINZEMAN & ELLIS,
72 Main Street,
LOS ANGELES, CAL.

"A PENNY SAVED IS EQUAL TO TWO EARNED."

Buy Your

PICTURES and FRAMES

—OF—

J. A. VALDER,

38 Spring St., Strelitz Block,

At Wholesale Prices, and save money. Picture frames made to order. Box frames made for Moss, Shell, Worsted and Wax-work.

R. M. WIDNEY,
Attorney at Law.

LOS ANGELES,
California.

A. BRUNSON. G. WILEY WELLS.

BRUNSON & WELLS,

Attorneys and Counsellors at Law.

Nos. 11, 12, 14, 16 and 17, Baker Block.

Will practice in the Supreme Court of this state, and of the United States, and attend to all business before the Departments at Washington, D. C.

V. PONET. B. F. ORR.

PONET & ORR

GENERAL FURNISHING UNDERTAKERS

No. 66 Main St.

Agents for Raymon's Metallic Burial Cases and Caskets of New York. Undertaker's goods wholesale and retail. Particular attention given to embalming bodies for shipping East.

INSURANCE AGENCY.

A. HERDMAN,

Duconmun Building, Los Angeles.

FIRE—LIFE—ACCIDENT.

FIRE INSURANCE COMPANIES.—**Imperial** of London; **London** of London; **Northern** of London; **Queen** of Liverpool; **Western** of Toronto; **Hartford** of Hartford. LIFE AND ACCIDENT.—**The Travellers' Life and Accident Ins. Co.** of Hartford.

All forms of Life and Accident Policies issued; also, Railroad Accident Policies for 25 cents a day, insuring $5000 in case of death, and $15 a week in case of accident. Attention is called to the combined life and accident policy of this company.

H. SLOTTERBECK & CO.,

Importers of, and Dealers in

GUNS, RIFLES, PISTOLS, CUTLERY

And Sporting Goods of Every Description.

Repairing Carefully Done.

75 MAIN STREET,

P. O. BOX, 1128. LOS ANGELES, CAL.

LOS ANGELES

Business College.

PRACTICAL BUSINESS TRAINING SCHOOL FOR YOUNG MEN AND WOMEN.

ROOMS 1 and 4,

ODD FELLOWS' BUILDING,

Over Post-office.

Sessions day and evening. Students may enter any day in the month. For particulars, apply to

C. W. LA PETRA,
Business Manager.

The Cheapest Route to Southern California

Is by the Steamers of the

Pacific Coast Steamship Co.

—FROM—

SAN FRANCISCO.

Tourists and others for San Luis Obispo, Santa Barbara, Los Angeles, San Diego and all places in Southern California should take tickets as above.

The opportunity of visiting San Francisco the metropolis of the Pacific Slope, of passing through the "Golden Gate," and of enjoying a short and invigorating voyage on the Grand Pacific Ocean should be availed of, especially as the expense by this route is less than by any other.

GOODALL, PERKINS & CO.,
GENERAL AGENTS,
San Francisco.

Ticket Office,
No. 214 Montgomery St.

COSMOPOLITAN HOTEL.

The only

Reliable First Class Hotel

In Los Angeles.

The Finest Hotel in Southern California.

HAMMEL & DENKER, Proprs.

THIS NEW AND ELEGANT HOTEL IS SITUATED in the centre of the city of Los Angeles, and contains nearly a hundred spacious and airy rooms, newly furnished in the most comfortable style. Rooms in suite for families and parties on every floor, with hot and cold baths.

The Table

Will always be furnished with the best supplies that can be procured in the market.

A Free Coach

Is always on hand to carry guests to the house.

No pains will be spared to make guests comfortable in every way.

A large reading room open night and day.

HENRY HAMMEL.
A. H. DENKER.

WATERMAN'S

HOT MINERAL SPRINGS.

This Delightful Resort is now open to the public. It is situated in the foothills, six miles from San Bernardino, California. Altitude, 1700 feet above the sea level, as given by Lieut. Wheeler's Engineering Corps. The climate is highly recommended for

Asthma, Throat and Lung Diseases.

And the waters are good for Dyspepsia, Rheumatism, and kindred diseases. For further particulars, address

R. W. WATERMAN,
Proprietor.

FIRST-CLASS

NURSERY STOCK!

We offer to the public a Large and Choice Selection of everything usually to be found in a nursery, at

Bed Rock Prices.

In preparing our stock for the market we have had the reputation of our nursery in view, as we are one of the permanent institutions of Southern California. We expect to build up a future business on the merits of our goods. We invite correspondence, and will send catalogue free to any address.

FISHER, RICHARDSON & CO.,

Los Angeles

NURSERY: Cor. Washington and St. Pedro Sts.
YARD: Spring St., opposite Fredericks.

F. P. RAMIREZ,
Attorney at Law,

72 TEMPLE BLOCK, Los Angeles.

A DISTINGUISHED IMMIGRANT—PROFESSOR BAIRD'S EUROPEAN CARP.

In 1876, Professor Baird, United States Commissioner of Fisheries, having for a long time understood the importance of acclimating the Carp in this country, engaged an eminent German fish-culturist, Dr. Rudolph Hessel, to bring over a supply of the best varieties of this favorite European food-fish. The first experiment, in May, 1876, was unsuccessful, and out of 300, with which he started, only four survived. In May, 1877, Dr. Hessel returned from a third trip, bringing to New York 345 young carp, 227 of which were of the varieties known as the "Leather Carp" and "Mirror Carp," and 118 of the common or "Scale Carp." They throve and increased rapidly in size, and in May, 1878, one hundred and twenty were removed to the Government Carp Ponds, built for them on the Washington Monument Reservation, in the City of Washington. These ponds, a plan of the essential portions of which is given below, are constructed after the best German models, and cover about twelve acres of land, in the vicinity of the Washington Monument.

The Carp have now multiplied to such an extent that it is possible to begin the work of distributing them. The introduction of this new food-fish will be of great interest and importance to all inland comunities; for there is no ditch, pond, or mill-dam, or any boggy, muddy spot, which can be converted into a pond, in which they will not thrive. It will be strange if, within twenty years, carp do not become as common domestic animals as ducks or pigeons. Through the courtesy of Prof. Baird we are able to present an excellent engraving of the new fish, with which, before long, many of our readers will doubtless become more directly acquainted.

The Carp belongs to the family known to naturalists as the *Cyprinidæ*, members of which are to be found in every stream and pond in North America. Good examples of this family are the common Goldfish, and the familiar brook species known everywhere by such names as "Dace," "Chub," "Red-fin," "Fall-fish," and "Shiner." The "Buffalo-fish" of the West is also said to resemble it in many respects. The Carp, however, is the king of his tribe, and those who know, do not hesitate to say that, as a food-fish, it far excels the best of them.

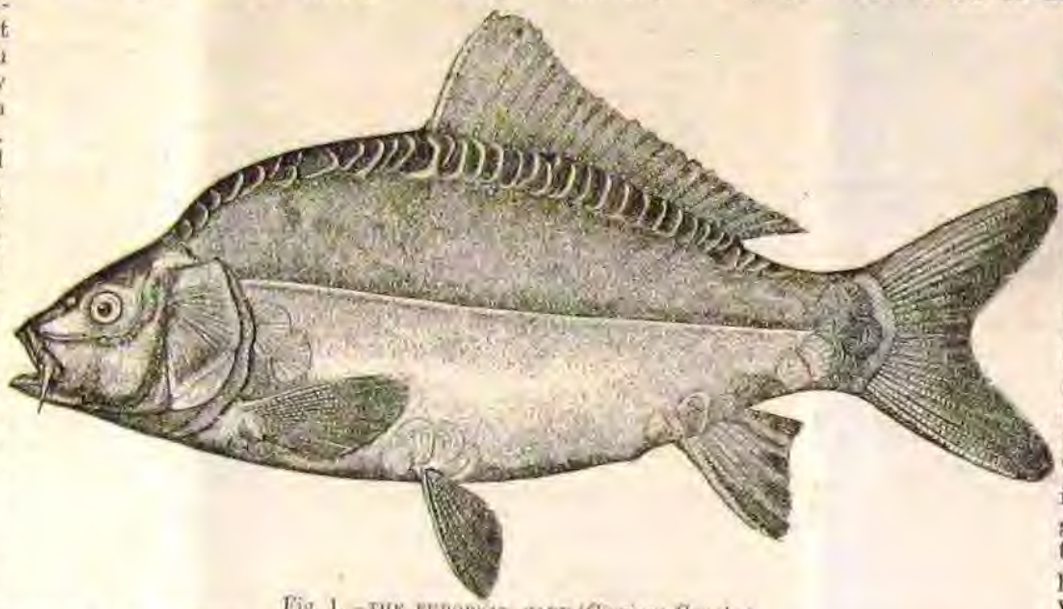


Fig. 1.—THE EUROPEAN CARP (*Cyprinus Carpio.*)

The Carp has other and strong recommendations: *It is, of all fish, the most readily propagated and reared.* It has been domesticated in Europe from time immemorial, having been introduced many centuries ago from Central Asia or China, where it is native. Carp soon become tame and eat from the hands of their keeper; Dr. Hessel handles those in the Government ponds as if they were tame kittens, and says that they come to him when he whistles. Their fecundity is great. A fish weighing four or five pounds lays 400,000 to 500,000 or more eggs, and one of ten or fifteen pounds about 1,500,000. In Middle Europe they spawn from May to August, and the breeding season appears to be nearly the same in Washington: In 1879 they spawned here from June to September. The eggs are sticky, and cling to plants and twigs, hatching in from nine to eighteen days, according to temperature. The actual rate of increase is very great, owing in part to the fact that the parents do not devour their young. The one hundred and twenty fish brought to Washington two years ago have increased to, at least, twenty thousand. *It is thus able to populate a body of water to the fullest extent. Unlike the majority of American food-fishes, their diet is largely vegetable*, and they are particularly fond of water-cresses and other juicy plants. They also devour worms and insect-larvæ, which they root out of the mud, and all kinds of refuse matter, such as the offal of kitchens, slaughter-houses, and breweries. By reason of these habits, *they are harmless to other fishes inhabiting the same waters.*

The Carp is adapted to very varied climates, and will thrive under conditions unfavorable to any equally palatable American fish. It is very hardy in all stages of growth. "The Carp is able," says Dr. Hessel, "to live in water where other fishes could not possibly exist; for instance in the pools of bog meadows or

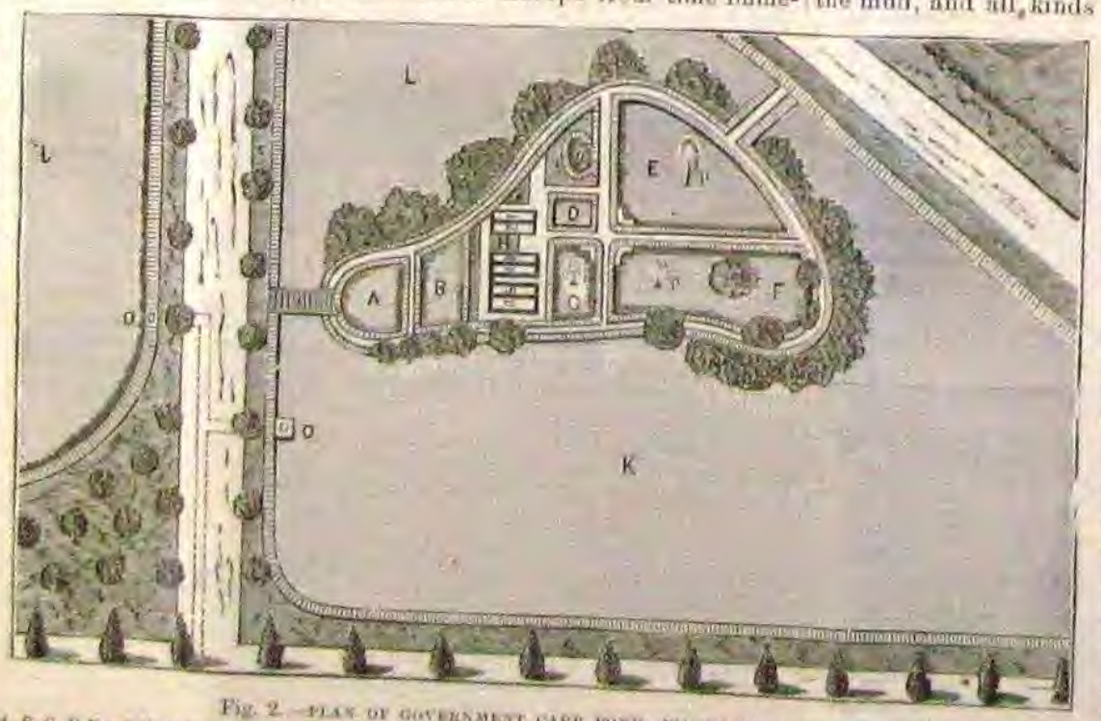


Fig. 2.—PLAN OF GOVERNMENT CARP POND, WASHINGTON, D. C.
A, B, C, D E and *F*, Hatching Ponds; *G*, Turtle Pond; *H*, Watch House; *J*, East Pond; *K*, North-west Pond; *L*, South-west Pond; *O, O*, Outlets; *P, P*, Fountains.

sloughs." Though it is not to be inferred from this that the best carp-ponds should be thus located.

Its growth is very rapid. The rate of growth depends upon many things: the temperature of the water, the quality and quantity of the food, the nature of the bottom. The rapidity with which Professor Baird's fish were grown surpasses anything hitherto known, and indicates that the Carp is particularly adapted to America.—*American Agriculturist.*

We shall in our next number give a history of Carp raising in California, and information regarding the making of ponds and fish-culture generally.

Distinguished for pure, fresh goods, and sold at the very lowest prices, are the remarks we hear in reference to the druggists and chemists at 72 Main street, Messrs. Heinzeman & Ellis. They have always been "NOTED" for carrying the largest and most complete stock of goods usually to be found in their line of any house in Southern California. Their establishment is open day and night for filling prescriptions, of which they make a *specialty.*

LOS ANGELES ACADEMY.

THE courses of study embrace the Regular Academic Course; Commercial and Business Course; Normal School Course; Latin, French, German and Spanish Languages; Vocal and Instrumental Music; Painting and Drawing.

O. S. FRAMBES, Principal.
S. E. FRAMBES, Preceptress.

Location: Main Street, bet. Third and Fourth.

JOHN WAUGAMAN'S GOLD DRY WASHER.

Factory and Exhibition Rooms, Requena St.

THE only successful Dry Washer ever invented. Capacity, twenty tons in ten hours, with a saving of ninety per cent. of all the gold in the gravel that is milled. The machine weighs 150 pounds, and will be made to order promptly. Placer miners will do well to call and examine this wonderful machine. 6

CONGRESS HALL
Oyster Saloon and Restaurant,

Corner of Main and Requena Streets,

OPPOSITE THE U. S. HOTEL.

THIS popular resort has been established since 1872, and has at all times been considered one of the most complete establishments on the coast where ladies and gentlemen can dine and receive the best of attention. Eastern, California and Puget Sound Oysters are served in all styles, in the most faultless manner. Oysters sold to dealers, wholesale, at San Francisco prices.

JOE BAYER, Proprietor.

OSBORNE'S OVERLAND TRANSFER CO.

JOHN OSBORNE, Proprietor.

Special Attention Paid to Handling and Moving Safes, Pianos, Pictures, Furniture, Etc. Leave your bills of Lading with us, and your Freight will be promptly Delivered on arrival, or transshipped without trouble to you.

OFFICE NO. 3 MARKET ST.,

Next Door to W. F. & Co's Express Office, Los Angeles, Cal.

TAKE NOTICE.

To those intending to plant **orange** and **lemon** trees, I would recommend the best varieties of **Thornless Trees**. Catalogue with full particulars sent free.

ADDRESS,

THOS. A. GAREY.

P. O. Box, 188, Los Angeles, Cal.

My Annual Catalogue of Vegetable and Flower Seed for 1880, rich in engravings from photographs of the originals, will be sent FREE to all who apply. My old customers need not write for it. I offer one of the largest collections of vegetable seed ever sent out by any seed house in America, a large portion of which were grown on my six seed farms. *Full directions for cultivation on each package.* All seed *warranted to be both fresh and true to name;* so far, that should it prove otherwise, *I will refill the order gratis.* The original introducer of the Hubbard Squash, Phinney's Melon, Marblehead Cabbages, Mexican Corn and scores of other vegetables. I invite the patronage of *all who are anxious to have their seed directly from the grower, fresh, true, and of the very best strain.*

NEW VEGETABLES A SPECIALTY.

JAMES J. H. GREGORY, Marblehead, Mass.

WALTER S. MAXWELL,
COMMISSION MERCHANT,

AND DEALER IN

Wool, Grain and Live Stock,

36 Spring Street,

Los Angeles, Cal.

THE PLUMMER
Patent Fruit and Vegetable Drier.

Reasons why it is the Best.

1. Most durable.
2. Simple to operate.
3. Most economical in fuel.
4. Fruits and vegetables dried by it command at highest market price.
5. Flavor, color and condition of fruit unrivaled.
6. More fruit can be dried by the Plummer in proportion to its cost than by any other.

An evidence of the superiority of the Plummer is seen in the fact that it received the highest award and medal at the Paris Exposition, 1878, Centennial medal, Philadelphia, 1876; three gold medals at the State Agricultural Society, Oregon, (one each year since patented) and silver medal for dried potatoes. And silver medal awarded by the Southern California Horticultural Society, 1879. Also medals and diplomas of highest award at numerous other places exhibited.

Over 1000 of these Driers already in operation on the Pacific slope since patented in Oregon three years ago.

For price, descriptive catalogue of Family and Factory Drier, address,

OGILVIE & EAMS,

Box 128. Los Angeles, Cal.

Cash Dry Goods House.

Your Patronage Solicited.

Good Goods.
Uniformly Low Prices.
Call and Examine.

—Also—

Men's Furnishing Goods.

Special Inducements in

Linen Bosom Shirts and Underwear.

Always glad to show goods.
Respectfully,

B. F. COULTER,

No 32 Baker Block, Los Angeles, Cal.

Harper, Moore & Co.,

110 Main Street Los Angeles

Call on us for

Hardware, Tinware, Stoves,
Agricultural Implements,

And

Averill Mixed Paints.

Plumbing, Tinning and Gas Fitting done on short Notice.

Well and Water pipe always on hand.

Give us a call and we will save you money.
Respectfully, HARPER, MOORE & CO.

E. NAUD. O. G. WEIGE.

E. NAUD & CO.
WINE GROWERS

—AND—

Wholesale Liquor Dealers.

California Grape Brandy in Bond.

Sole agents for the Whiskies of G. H. Chase & Co., Louisville, Ky.

G. W. MORGAN,
REAL ESTATE AGENT.

Room 11 (Up Stairs),

POST-OFFICE BLOCK,

LOS ANGELES CITY.

The oldest Real Estate office in the city. Furnish horse and carriage and show property.

Markets.

Commercial Review.

Since our last there has not been any special changes in the markets, excepting in oranges. The demand for the best being in excess of the supply, with prices rating at about $30 per thousand.

The advance in shipping rates has a tendency to lessen the number of shipments, all waiting until the rates are restored which we believe will soon be done.

Retail Groceries, Etc.

Butter, Cali.				Rice	8	@	10
Choice, lb	20	@	25	Yeast Pwdr. doz	50	@	2 00
Cheese	18	@	20	Can'd Oysters,			
Eastern	25	@	30	doz	2 00	@	3 50
Lard, Cal	8	@	10	Syrup, SF Gd'n	75	@	1 00
Eastern	15	@	20	Dr'd Apples, lb	6½	@	12½
Flour, ex. fam				Gdr Prunes	12½	@	10
bbl	8 00	@	9 00	Figs, Cal	9	@	15
CapitolMills,				Peaches	12½	@	20
⅌ cwt	00	@	3 00	Oils, Kerosene	25	@	50
Pion'r ⅌ cwt	00	@	2 50	Honey in comb	15	@	20
Superfine, do	00	@	2 70	Do. No. 2	10	@	12
Graham 50-lb				Extracted	10	@	12½
sack	00	@	1 85	Bacon, Cal	9	@	10
Buckwheat	40	@	45	Ham, do	9	@	12
Oatme-lCal,10-				Eastern	15	@	....
lb sacks	00	@	55	Potatoes, ctl	75	@	....
Eastern do	00	@	70	Onions, ctl	10	@	2 25
Corn Meal, lb	1c	@	1½c	Beans	1 25	@	2 50
Sugar, w crshd	12½	@	13½	Butter	1 40	@	1 50
Light Brown	8	@	9½	Lima	5 00	@	6 00
Coffee, Green	20	@	35	Fresh Beef	5½	@	6½
Tea, Fine Bl'k	80	@	1 00	Round steak	00	@	8½
Finest Jap'n	55	@	1 00	Sirloin	10	@	12
Candles, Adamts	15	@	25	Porterhouse	12½	@	15
Soap, Cal	5	@	10	Chickens	3½	@	4½

The Effect of Sub-irrigation.—Our fellow-townsmen, Messrs. Hamilton & Grove, have achieved a brilliant success by their method of sub-irrigation, which has attracted such general attention throughout the State, and is destined in the future to entirely supersede the old process, especially in all large orchards. Mr. M. P. Grove has an orchard on Adams street, which all enterprising horticulturists should visit, as it fully illustrates the benefits of the new system by the thrifty appearance of the trees and the excellent quality of the fruit, although but few of the trees are yet bearing. The water for six acres is supplied from a common windmill, and the pipes connect with the roots of each tree. Mr. Grove irrigates three times a month during the dry season, and the labor is trifling when compared to the common method of surface-irrigation. The principal advantages of the system are the small quantity of water required; the thorough moistening of the soil underneath the surface, thus preventing it from baking; the small expense after the pipes are laid, one man being able to do the work of three; and the great improvement in the appearance of the trees and vines so treated. For a full and entertaining article on sub-irrigation, we shall refer our readers to another number of SEMI-TROPIC CALIFORNIA, when we hope to give this important subject the space it deserves.

An Italian gentleman has recently established a maccaroni factory in the Pelanconi Block, where he proposes to manufacture a first-class article, and hopes for the patronage of Southern California merchants. All such enterprises are of great value to our city and should be aided in every manner possible.

We would call the attention of those of our readers who contemplate purchasing Seeds or Plants during the coming season, to the advertisement of Peter Henderson & Co., New York, now appearing in our columns. Peter Henderson, the senior member of the firm, is known far and wide as a horticultural writer and authority. His books, "Gardening for Profit," "Practical Floriculture," and "Gardening for Pleasure," are now in the hands of thousands. The Greenhouse establishment of this firm covers three acres in greenhouses and employs upwards of fifty hands. Millions of plants are shipped by mail or express annually to every State and Territory. Their seed warehouse is the most extensive in the city of New York, and every order received is certain to be filled with goods of the best quality, and as they are producers as well as dealers, "EVERYTHING FOR THE GARDEN" will be sold at low rates.

To answer a great many inquiries we mail this number of the SEMI-TROPIC to all who have written us since our last issue. We will also mail our April number to all who send us their address.

Mrs. Dennison, the owner of an extensive orange orchard and vineyard on Kohler lane, in this city, has a curiosity in the shape of an orange tree, which commenced to blossom two years ago and continued in bloom the entire year. This season it is loaded with fruit and commences to blossom in December, two months before the usual time. Its appearance, at present, covered with blossoms and golden fruit, is beautiful, and shows how our climate will develop semi-tropical fruits.

Success to whom success is due. Everybody indorses the man who, by his own energy, industry and honesty, pushes his way up against all obstacles to success. Such a man is J. A. Valder, the picture-frame manufacturer, No. —, Spring street. If you want anything in the line of pictures or frames, see "Jake," and take our word for it, you will be suited and satisfied always afterwards.

Messrs. Noel & Felt have become noted as caterers, by the grand lunches "set up" in their rooms, noon and night, at No. 114 Main Street. Their Billiard Room is one of the most cozy places in the city, and by their generous and fair treatment of the public they have built up a large trade.

PETER HENDERSON & CO
SELL
EVERYTHING
FOR THE
GARDEN
SEEDS, PLANTS, SMALL FRUITS &c.
CATALOGUE FREE TO ALL
WHO APPLY BY LETTER.
Peter Henderson & Co.
35 CORTLANDT ST. NEW YORK.

THE DEAF HEAR
THROUGH THE TEETH!
PERFECTLY, all Ordinary Conversation, Lectures, Concerts, etc., by SEW Chassels, in the Series of Hearing, is a wonderful New Scientific Invention, THE DENTAPHONE. For a Marvelous, with test on the Deaf, see in the Deaf and Dumb—See New York Herald, Sept. 26; Christian Standard, Sept. 27, etc. It displaces all Ear-trumpets. Size of an ordinary Watch. Send for our FREE pamphlet. Address AMERICAN DENTAPHONE CO., 287 Vine St., Cincinnati, Ohio

Fruit and Farming Land
(For Sale). All Irrigable.

800 ACRES VERY CHOICE FRUIT AND farming land at Orange, Cal., all with water right and water stock, etc., under the Santa Ana Valley

Irrigation Co.'s Water Ditch,

Will be sold on the most reasonable terms, entire, or in lots to suit. Address,

Dr. H. S. Orme,
Los Angeles, Cal.

J. G. JACKSON. W. G. KERCKHOFF. JAMES CUZNER.

JACKSON,
KERCKHOFF
& CUZNER,
Dealers in
Lumber, Windows,
Blinds, Doors,
Moldings, Laths, Pickets, Shingles,
Plaster Paris, Cement and Hair.

Cor. of Alameda and First Sts.
Los Angeles, Cal.

WALTER S. MOORE,
FIRE INSURANCE.
Policies written here on
BUILDINGS OF ALL KINDS,
GRAIN AND HAY.
Special rates on growing crops.
36 SPRING STREET.
Central Block, Los Angeles, Cal.

SPLENDID FLOWERS
Over 1200 distinct varieties. All strong Plants, each labeled, delivered safely by mail. The largest assortment. Low prices. In business for 24 years. Guarantee satisfaction. Stock comprised all desirable varieties. Only mature plants sent. Our new Illustrated Hand-Book, sent free, contains name and description of each plant, with instructions for successful cultivation. Do not purchase Plants elsewhere before sending for our new HAND-BOOK. Every lover of flowers should have it. Every buyer of cheap plants should have it. Every one wanting new and choice plants should send for our Hand-Book.
HOOPES, BROTHER & THOMAS,
CHERRY HILL NURSERIES, West Chester, Pa.

HARNESS, SADDLES, LEATHER, ETC.
Call, for the best quality of these goods, on
H. HEINCH,
Cor. Los Angeles and Com. Sts.

R. J. TRUMBULL. CHAS. W. BRENE.

R. J. TRUMBULL & CO.,

Wholesale and Retail Dealers in

Seeds, Trees, Bulbs,

PLANTS.

FANCY POTTERY, ANTIQUE WARE, RUSTIC BASKETS, GARDEN TRELLISES, GARDEN HARDWARE, LAWN MOWERS, ETC., ETC.,

Nos. 419 and 421 Sansome Street,
SAN FRANCISCO.

Catalogues on application.

RIVERSIDE LANDS!

The Riverside Land and Irrigating Company, of San Bernardino County, offer

15,000 ACRES!

Of the most desirable land in Southern California for Semi-Tropical

FRUIT GROWING

AND

Beautiful and Healthful Homes.

These lands are located in the Santa Ana Valley, San Bernardino County, 50 miles southeast of Los Angeles, and 7 miles south of Colton, a station of the Southern Pacific Railroad.

Twenty-eight miles of irrigating canals are now completed, and there is abundant water in the dryest seasons to irrigate all the lands offered by the Company. About 1,000 inhabitants are now in the Colony—enterprising and intelligent people. We have good schools, four church organizations, daily mail, telegraph line, newspaper, etc. Lands are offered at moderate prices and on liberal terms, and no lands are sold but to actual settlers. I invite all seeking homes in this portion of the state to call and see us before purchasing elsewhere. Every facility will be afforded for the examining of the lands offered.

S. C. EVANS, President R. L. & I. Co.

LAKE VINEYARD

LAND AND WATER ASSOCIATION

This Association is now offering for sale on easy terms some of the finest lands in California. They are situated about 1000 feet above the sea, in the rich and beautiful valley of San Gabriel, protected on the north by the Sierra Madre Mountains, while on the west a range of hills and mountains tempers the chill of the sea breeze as it passes over them for forty miles before reaching this locality. This combination of advantages makes it a delightful residence for invalids, while the lands produce all the grains and fruits of the temperate zone, and many of the products of the tropics. The land is supplied from large reservoirs fed by mountain springs, and carried in pipes along all the avenues of the tract which is divided into ten-acre lots, with water rights for every lot. This property is but seven miles from Los Angeles, and near the line of the Southern Pacific Railroad. For prices and full details, address

F. W. WOOD,
Secretary L. V. L. & W. A.

WM. H. PERRY. W. W. WOODWORTH. S. H. MOTT.

PERRY, WOODWORTH & CO.,

STEAM

Sawing, Planing & Molding Mills,

At their Lumber Yards,

76 Commercial St., Los Angeles Cal.

Dealers in

Lumber of all kinds, Plaster, Hair, etc.

Also manufacturers of

Doors, Sash, Blinds, Moldings and cut and turned work of all descriptions.

Dotter & Bradley,

Dealers in

Furniture, Carpets,

Wall Paper, etc.

80, 82, 84 Main Street.

Los Angeles, Cal.

Largest Stock

And

Lowest Prices.

Phineas Banning.

Forwarding

—AND—

Commission Agent,

Wilmington, Los Angeles Co., Cal.

Vessels Towed,
Goods Lightered.

Lumber and Grain stored with accustomed promptness.

BANKING HOUSES.

LOS ANGELES

COUNTY BANK,

MAIN STREET.

LOS ANGELES, CAL.

Capital Stock (paid up) $300,000

J. S. SLAUSON ..... President
R. S. BAKER ..... Vice-President
J. M. ELLIOTT ..... Cashier

DIRECTORS.

J. S. SLAUSON. J. W. BURGER.
T. A. HOSTON. BURKE S. BAKER.
J. BURGER. GEO. H. FLOURNOY.

Receive Savings Bank Deposits.

Buy and sell exchange on San Francisco, New York, London, Paris, Berlin and Frankfort.

Pay exchange on all parts of the United States and Europe.

Receive money on open account and Certificates of Deposit, and do a general Banking and Exchange business.

COMMERCIAL BANK

OF LOS ANGELES.

Authorized Capital $300,000

E. GOLLENBECK ..... President
E. F. SPENCE ..... Cashier

DIRECTORS.

A. H. DUCOR. W. WOLFSKIN.
S. H. MOTT. H. MAYER.
J. LANDSBERGER. O. S. WESTBURY.
E. F. SPENCE. J. E. GOLLENBECK.

This Bank is prepared to receive deposits on open account, issue Certificates of Deposit, and transact a general Banking Business.

Collections made and proceeds remitted at current rates of exchange.

FARMERS' & MERCHANTS' BANK

OF LOS ANGELES.

CAPITAL $500,000

ISAIAH W. HELLMAN ..... President
I. N. GOODWIN ..... Vice-President
JOHN MILNER ..... Secretary

BOARD OF DIRECTORS.

ISAIAH W. HELLMAN. JOHN S. GARDNER.
O. W. CHILDS. C. E. THOM.
I. N. GOODWIN. J. MORITZ.
JOHN MILNER. DAN. ANSHUTZ.
JOHN MARCHESE.

Exchange for sale on
NEW YORK, LONDON, DUBLIN, FRANKFORT, PARIS, BERLIN, AND HAMBURG.

Receive Deposits and Issue their Certificates.

Buy and sell
LEGAL TENDERS, GOVERNMENT, STATE, COUNTY AND CITY BONDS.

Will also pay the highest price for gold and silver bullion.

"ABEL STEARNS RANCHOS."

THE

Center of Los Angeles Valley,

Los Angeles Co., Cal.

Embracing Anaheim, Westminister, Artesia, Garden Grove, Etc.

80,000 Acres for Sale

WILL BE

Sold in Tracts to Suit,

AT

Very Low Prices, and on Easy Terms and Low Rate of Interest.

Hundreds of flowing Pipe Wells. Water near the Surface. Rivers on two sides; ever-flowing creek through the tract. Front on the ocean.

Transportation and passage by steamship or railroad.

S. P. Railroad through the Tract.

23 HOURS FROM SAN FRANCISCO.

Convenient to markets and competing lines of shipments for produce, etc., etc.

The unsold land for sale or lease in sections or fractions, by

Alfred Robinson,
120 Sutter Street,
San Francisco, Cal.

Or apply to

Wm. R. Olden,
Anaheim, Los Angeles, Cal.

Or concerning Westminister Colony, to REV. ROBERT STRONG, Westminister, Cal.

Terms, one-fifth cash, balance on interest at 10 per cent. Send for Circulars and Maps.

SIERRA MADRE VILLA.

A Private Hotel on the table lands of the Sierra Madre Mountains, in full view of the famous Orange Orchards of the San Gabriel Valley in Southern California, for the accommodation of parties seeking a mild and healthful climate. It is four miles from the Mission San Gabriel Railroad and Telegraph Station; thirteen miles from Los Angeles. The buildings are entirely new, lighted by gas, and with all the comforts of an Eastern home. For further information,

Address **W. P. RHOADES, San Gabriel, Los Angeles Co.**

LANDS!

FOR SALE—TO RENT—AND FOR DISPOSAL OTHERWISE,

In different portions of Los Angeles County and City.

Especially upwards of 2000 acres of land well adapted to the growth of vineyards, to be disposed of on shares, i. e., one portion to be cultivated, planted and kept in grape vines for three years, in consideration of conveyance of another portion. Of the lands last referred to a large body is on the Tujunga Ranch, and is irrigable from the Tujunga Creek during the winter and up to the middle of June. Some capital as well as labor is requisite for constructing ditches and clearing off the brush which grows on about two thirds of the land. Any company or colony seeking a location desirable as an investment, or as profitable, healthy and pleasant homes, should look at these. For particulars, apply to

HUGH GLASSELL,
At Office of Glassell, Smith & Smith,
TEMPLE BLOCK, LOS ANGELES CITY.

S. H. SEYMOUR. **RUSS HOUSE** J. D. FARNHAM.

Montgomery Street, Extending from Pine to Bush Streets, San Francisco.

S. H. SEYMOUR & CO., Proprietors.

The leading Business and Family Hotel of San Francisco. Having been recently enlarged and newly furnished, now contains 300 elegant rooms, at prices lower than any other first-class Hotel on the Pacific Coast. **100 Rooms at $2.50 per day; 150 Rooms at $2.00 per day; 50 Rooms at $1.50 per day.** And still lower special rates for Excursions and other large Parties. The table is unsurpassed by any other first-class Hotel in the city, being supplied with the best the market affords. Polite and attentive Coachmen will be found in waiting upon the arrival of all trains and steamers to convey guests to the Hotel, Free of Charge.

APRIL

SEMI-TROPIC CALIFORNIA

AND

SOUTHERN CALIFORNIA HORTICULTURIST.

LOS ANGELES, CAL.

CARTER & RICE,

PUBLISHERS

VOL. III. 1880. No. 4.

J. O. JACKSON. W. G. KERCKHOFF. JAMES CUZNER.

JACKSON, KERCKHOFF & CUZNER,

Dealers in

Lumber, Windows,

Blinds, Doors,

Moldings, Laths, Pickets, Shingles,

Plaster Paris, Cement and Hair.

Cor. of Alameda and First Sts,

Los Angeles, Cal.

EVERYBODY

Knows or should know that

The Grange Store

—IS—

Noted for its Low Prices

—AND—

Choice Groceries.

Highest Prices Paid for all Kinds of Country Produce. Gilt Edge Butter a Specialty.

SEYMOUR & CO.

A. LUSK & CO.,

COMMISSION MERCHANTS,

Wholesale dealers in green, dried and canned fruits, and general farm products. Their long experience in the business, and high, honorable dealing, entitle them to the patronage of all shippers.

534 & 536 Clay St. 539 & 531 Merchant St.
SAN FRANCISCO, CAL.

DILLON & KENEALY,

Are receiving the Choicest Stock of

Spring and Summer Goods

Ever imported to Los Angeles.

DRESS GOODS,

In all the New Shades and Styles,

BROCADED AND STRIPED SILKS,

FANCY HOSIERY.

KID GLOVES, Plain, Laced and Embroidered.

Ladies' and Misses' Silk and Lisle Thread Gloves in Every Variety,

Ladies' and Children's Silk Mitts, Black and Colored.

DILLON & KENEALY,

86 Main Street,

Los Angeles, Cal.

SIERRA MADRE VILLA.

A Private Hotel on the table lands of the Sierra Madre Mountains, in full view of the famous Grange Orchards of the San Gabriel Valley in Southern California, for the accommodation of parties seeking a mild and healthful climate. It is four miles from the Mission San Gabriel Railroad and Telegraph Station; thirteen miles from Los Angeles. The buildings are entirely new, lighted by gas, and with all the comforts of an Eastern home. For further information

Address W. P. RHOADES, San Gabriel, Los Angeles Co.

REMEMBER

In buying your Groceries, Provisions, Crockery, etc., that there is but one store in Southern California where goods are bought and sold exclusively for cash, consequently the only place where you can get the same at any time, and under all circumstances, at the very lowest possible prices, and that is the

AMERICAN CASH STORE,

C. W. GIBSON, Prop.

No. 48 and 50 Spring St.

Tablets issued. Los Angeles.

LANDS!

FOR SALE—TO RENT—AND FOR DISPOSAL OTHERWISE,

In different portions of Los Angeles County and City.

Especially upwards of 2000 acres of land well adapted to the growth of vineyards, to be disposed of on shares, i. e., one portion to be cultivated, planted and kept in grape vines for three years, in consideration of conveyance of another portion. Of the lands last referred to a large body is on the Tujunga Ranch, and is irrigable from the Tujunga Creek during the winter and up to the middle of June. Some capital as well as labor is requisite for constructing ditches and clearing off the brush which grows on about two thirds of the land. Any company or colony seeking a location desirable as an investment, or as profitable, healthy and pleasant homes, should look at these. For particulars, apply to

HUGH GLASSELL,

At Office of Glassell, Smith & Smith,

TEMPLE BLOCK, LOS ANGELES CITY.

T. E. ROWAN,

REAL ESTATE AGENT

—AND—

COMMISSION AGENT.

Ranches, Orange Groves, Fruit Lands, Farms and Vineyards for Sale.

AGENCY FOR

State Investment and Insurance Company,

Of San Francisco, Cal.

77 Downey Block,

Los Angeles, Cal

SEMI-TROPIC CALIFORNIA

DEVOTED TO AGRICULTURE, HORTICULTURE, AND THE DEVELOPMENT OF SOUTHERN CALIFORNIA.

VOL. III. LOS ANGELES, CAL., APRIL, 1880. No. 4.

INTER-OCEANIC CANAL.

VIEWS FROM A PRACTICAL STANDPOINT.

EDITOR SEMI-TROPIC: Permit me, through the columns of your valuable paper, to offer some reflections on the question of a ship canal, which is attracting so much public attention at this time, and with such varied opinions. It is one that calls for the thoughtful consideration of the people of our State to decide intelligently whether it would prove conducive to our prosperity or not, and by whom it should be built.

The *New York Times* says the Monroe doctrine should not be permitted to interfere with this project, but that our people should work to secure absolute neutrality. This would be right and proper if this guaranteed neutrality could be depended upon; but ancient and modern history both prove that treaty stipulations are not observed in times of war; and in the event of hostilities between our country and the powers guaranteeing this neutrality, is there a doubt but that the first move would be to obtain control of this canal as the key to the Pacific? Other journals, and among them one of our own local papers, argue that our interests on this coast are opposed to a ship canal, because if built it would divert from us the benefit now derived from the Oriental overland freight.

If this canal should be built by any other nation (as suggested by the *Times*) would not the result be the same, and not only our railroads lose these freights, but others would derive all the benefits accruing from the construction of the canal.

I am one of those who believe that the increasing commerce of the world demands that this canal should be opened, and that it would not be fair or just for our Government to place obstructions in the way and at the same time adopt the policy of the dog in the manger by trying to prevent any one else from building it.

I have yet to learn on what theory of practical experience the increasing of routes for transportation works to the disadvantage of a great producing State like California; especially when we consider that those productions demand cheap freights in order to leave any margin for a profit to the producer.

The through freight, consisting of teas, silks, and a few other valuable productions that can pay a high rate from the oriental world, is insignificant when compared with the great benefit which would accrue to the producers of California, in obtaining cheap transportation for their wheat, barley, wool, honey, fruits, grape products, etc.

I am glad to know the Board of Trade of San Francisco is moving in this question, and have appointed a committee to make a special report; and if every chamber of commerce on this coast would take action, the result could not be but beneficial.

There are some pertinent reasons, political and commercial, why we should build and control this canal. First, to facilitate the increasing demand of the commercial world, and to set at rest for all time the agitation of this question. Second, as a matter of national safety. Our people should build and control it, to be able to protect our extensive possessions on this coast; for if owned and controlled by any other nation, the expense of making and maintaining fortifications, building and manning vessels of war and naval stations, would amount to more than the cost of two such canals.

Commercially, it would give our merchant marine a great impulse, creating a much greater demand for our idle vessels; for the producers a home market at much better prices.

When we can deliver our products on board of ships in our own harbors, and have them transported to eastern ports in from twenty to twenty-five days, and in the ports of Europe within thirty days, without breaking bulk, obtaining the natural results of cheap transportation; we can say with security, farewell to monopolies and high rates of freight. There will be enjoyed a commercial prosperity that can never be secured by any other means of communication.

Another factor of importance is that it will bring our commerce into closer relations with our near neighbors of Central America, towards whom a great apathy exists on the part of our people, notwithstanding that country is wonderfully rich, giving the most varied and valuable productions of any on the globe. They are articles that we require and can not profitably produce, such as India Rubber, indigo, cochineal, coffee, cocoa, etc., etc. For these we should exchange our own products and manufactured goods; and yet three fourths of their exports pass right by our doors, seeking a market for exchange in Europe.

With a present population of over two millions, and a capacity for supporting in luxury ten times that number, being only two thousand miles from us; with this canal opened and controlled by our people, may we not reasonably expect a change in all this for our benefit.

Therefore, I say, every citizen of this country is interested in the canal project, and should use his influence in favor of building it; and no state will derive a greater and more speedy return from it than our own sunny California.

J. E. HOLLENBECK.

MIXED FARMING.—Until our country is settled up, and the virgin fertility of the new soil is beginning to be exhausted, we can not hope for that safe and solid foundation for our agriculture which comes from mixed farming. When every farmer comes to that point when he knows that his land is a medium through which crude fertilizing elements pass in becoming food—vegetables, fruits, grains, flesh—he will feel the importance of a variety of products—a rotation of crops—and the value of animals in the economy of the farm. As our country grows older, farmers will from necessity be more thorough students of their profession.—*American Agriculturist.*

THE pear trees in the old Mission garden at Santa Cruz, which were planted by the Spanish priests, are now ninety years old, and yielded an immense crop last year. They were in blossom on last New Year's day.

SEMI-TROPIC

CALIFORNIA

AND

SOUTHERN CALIFORNIA HORTICULTURIST.

Devoted to Agriculture, Horticulture, and the development of Southern California.

Terms $1.50, per year, in advance, postage prepaid.

Address, CARTER & RICE, Los Angeles, Cal.

N. C. CARTER, GEO. RICE. } PUBLISHERS AND PROPRIETORS.

CIRCULATION - - - - 8000.

SOUTHERN CALIFORNIA embraces the seven southern counties of the State: San Diego, San Bernardino, Los Angeles, Ventura, Santa Barbara, Kern and San Luis Obispo. The city of Los Angeles being the metropolis of Southern California, as well as its railroad center, it is but natural that people from the East, coming here to look at the country, for homes; or as invalids, for health; tourists, for pleasure; or only to enjoy our mild climate, and escape the rigorous winters of the north and east, should come direct to this city. From here they can go to all parts of Southern California at a great saving of time and expense. We do not ignore the other cities and counties of Semi-Tropic California; on the contrary, we have been instrumental in having many visitors and home-seekers go to Santa Barbara, San Bernardino and San Diego. We always talk Los Angeles, because it is our home. Our paper receives its support largely from her citizens, and besides, it is impossible to visit Southern California and not see Los Angeles. This is the focus—the hub. Persons consulting their maps, as we did before coming here, see they can make Los Angeles cheaper and quicker than any other point in the southern part of the State; that once here, they can visit all sections at their leisure and convenience. Los Angeles was our preference or we should not have stopped here; and yet we would insist that every one coming to Southern California should visit the other counties before selecting a permanent home. Health seekers and pleasure seekers should see all of our glorious Semi-Tropic California.

Prof. HERR AUGUST WILHELMI, of Germany, after testing very critically the wines and brandies of the spacious cellars of Mr. L. J. Rose, at Sunny Slope, this county, pronounced them superior to those of his own country. He says Mr. Rose's Blaue Elba was not only the equal, but was, in his opinion, the superior of any wine made in the German Empire. He spoke with enthusiasm of its bouquet, flavor and general excellencies. The sweet wines, the Muscatel particularly, also attracted his admiration from their richness and body. He had no hesitation in assuring his host that if these wines were made known in Germany that empire would consume every gallon which the Sunny Slope vineyards could turn out. There would be no need of pressing their sale in the United States. The professor ordered a pipe each of Mr. Rose's wine and brandy, to be shipped to his home in Germany.

OUR MONTHLY SERMON.

TO the hard working, industrious mechanic or laborer, what can be more pleasant, more gratifying, than to return after a hard day's work is over to his home, where his family is anxiously awaiting his return, and sit down under his own roof, and be able to say to that family for whom he lives and for whom he toils: "This much of God's acres do I own." I am not afraid that when the quarter or year passes around, a surly, unsympathizing landlord will come demanding his rent; and if I have not been able to save so much, will turn us out to hunt another house, and again perhaps be subject to the same misfortune."

It is the same with the business man and professional man. And yet, how few, comparatively speaking, secure for themselves a home, although all will admit that, had they made the effort in time, or had they taken advantage of some particular opportunity which they recollect, they might have had one.

Had they not wasted their time and means, they too might be able to sit down under "their own vine and fig tree." And here lies the secret why so many are without homes of their own. Hundreds of people, had they been vigilant and careful in husbanding their means, might have bought and paid for a comfortable home. We say, almost without effort. But because their income was small, and nearly all of it was used to provide for their families, or to keep up the "style" while single, they thought the balance too small to be worth saving, and were waiting until they could by some speculation, or "streak of good luck," make a sudden fortune, and then they would provide a home. But, alas! for them the fortune was never made; and after old age had come, they could look back and see chances they had lost. Had they dispensed with only a portion of the luxuries and unnecessaries they indulged in, a home could have been paid for many times over.

LA SENORA says: "Los Angeles is a beautiful city of Southern California, containing 18,000 inhabitants. In the Mexican portion of the city a great many Sonorians reside. The city has become famous for its climate and semi-tropical productions. It will probably have a brilliant future, as in a short time the state will probably be divided, and Los Angeles made the capital of the new State, when there will be schools and colleges established there, as in Oakland. The population is of a high character."

Eine Blume aus dem Goldenen Lande — "A Flower from the Golden Land"—is the poetical title of a book published in Austria by Archduke Salvador, who passed the winter of 1876 in Southern California. He says, "to those in search of a mild, healthful climate, no country offers greater inducements to such aims; no country is so suitable in every respect to the European emigrant as Southern California; a land which unites fertility of soil and ease of industrial development with healthfulness of climate; a land where the harshness of winter and the heat of summer are alike unknown."

A CORRESPONDENT of the *London Standard*, in speaking of California, says:

"Some little time since, samples of California wines were forwarded for my opinion. The red was the burgundy type, and in the tasting of which I began to think I had never before known what wine was. Its color was the richest ruby, its aroma most inviting, with a flavor and farewell which the taste of the most delicate fruit would leave behind.

"The white wines, both 'dry' and that made from the richer grape, were equally fine; the champagne, not a dry wine, but delicate and sweet as nature made it, surpassed in point of flavor any of the wines for which our good friends in France make us pay so dearly. Let us improve and refine our palates, give over drinking fortified wines, and take only the pure juice of the grape."

THE ANNUAL MEETING of the Southern California Horticultural Society will be held at the Pavilion on Saturday, April 10, 1880, at 11 o'clock A. M., for the election of officers. A full attendance is requested.

N. C. CARTER,
Acting Sec.

EASTERN READER,

WHAT DO YOU THINK OF THIS?

Semi-Tropic California (1 year)	$1 50
Pocket Map of California and Nevada (20x24)	50
Regular price	$2 00
Sent to any EASTERN address for	1 00

If you want to know about California, and have a correct map of the State, now is your chance. This offer is good only until June. Send post-office order, currency or stamps; give name of post-office, county and state.

Address CARTER & RICE,
Los Angeles, Cal.

THE CALIFORNIA HORTICULTURIST for March is truly a "grape number;" and, in connection with our grape number, should be in the hands of every man who is engaged in viniculture.

L. J. Rose of San Gabriel paid to one person this year $8,600 for the grapes grown on one hundred acres of land.

We will answer all communications addressed to us in reference to California through this column. We will answer regular subscribers by personal letter, when stamp is inclosed for postage.

SOME QUESTIONS ANSWERED.

J. C. L., Pittsfield, Ill.—Every branch of business is fully represented here, and we would not advise you to come here to go into any mercantile pursuit. You can (with your capital) buy land, plant a vineyard, orange orchard, and fruit orchard, and farm "a little," until your vines will make you a good living, and in a few years your oranges will make you in more than comfortable circumstances.

Consumption, Pittsburgh, Pa.—If you are not too far gone—you know what we mean by that—we unhesitatingly say come to Southern California. If you are not able to work and make a living, you will not find any *easy* jobs lying around loose; and we will advise you to bring money to live on. Board and living as cheap here as with you.

N. A. B., Milwaukee, Wis.—No, sir; you will not find "plenty of work at big salaries," nor, likewise, schools in want of a "Jack of all trades." The applicants for certificates here have not only to be "well up," but *away* up in their educational abilities to pass examinations. Besides, there are more teachers now than schools. Teachers' wages are good; $75 to $100 per month.

A. M. L., Creston, Ia.—Your subscription received; back numbers sent; we have a few numbers left. All your questions will be fully answered in our future numbers. We have no desire to influence any one to come to California, unless we are sure they will be entirely satisfied. We have no interest that will cause us to overdraw the benefits to be derived from a residence here. We might say, in all truth, when speaking in praise of Southern California, in the language of the Queen of Sheba: "The half has not been told."

J. M. B., Chicago.—"If life without money is not much," money without life is nothing at all. Your health is worth more than it can cost; and, therefore, we would advise you to dispose of your property, even, as you say, at a sacrifice, and move to Southern California, where you are almost sure of better health, if not an entire cure. You can buy property here fully worth as much as yours, and for the same money you receive for yours. All lung affections are benefited by a residence here.

Att'y, Dalton, Ga.—We have enough lawyers; and unless you are very bright, an excellent orator, and money to keep you for a few years, until you could build up a practice, we say, by all means, stay where you are. Los Angeles is noted for her eminent lawyers, and none other could, can prosper here. Plenty of room for farmers, and more money in it than in pettifogging.

Editor's Table.

We hardly expected the use of a table, other than to write on, but we find not only the necessity of a table, but a table with drawers in it, to accommodate the numerous and various articles sent or left us. Hereafter, we shall make the "Editor's Table" a feature of the Semi-Tropic California.

Books received and for review in our next issue:

Pacific Law Encyclopedia, by J. F. Cowdery. Revised edition, 820 pages. A. L. Bancroft & Co.: San Francisco, Cal.

Manual of American Ideas, by Casper T. Hopkins, M. D. 358 pages. A. L. Bancroft & Co.: San Francisco.

Apache Land, by Chas. D. Poston, of Arizona. A. L. Bancroft & Co., Publishers, San Francisco.

Caxton's Book, by W. H. Rhodes. Cloth, octavo, 300 pages. $3.00. A. L. Bancroft & Co.: San Francisco.

For "Our Boys."—Collection of original literary offerings in prose and poetry, by popular writers at home and abroad. Sold for benefit of "Youth's Directory" of San Francisco. Handsome octavo, over 400 pages. $3.50. A. L. Bancroft & Co.: San Francisco.

Catalogues.

Alfred Bridgeman's Descriptive Catalogue of Vegetable and Flower Seeds, Garden Tools and Horticultural Books. 876 Broadway, New York City. Mr. Bridgeman's Catalogue is replete with good things, and should be in the hands of every Horticulturist. Sent free.

Select List of Field, Garden, and Flower Seeds grown by Mr. Joseph Harris, Moreton Farm, Rochester, N. Y. Sent free to any address. Mr. Harris is one of the foremost of the famous Rochester seed growers, and we commend his seeds to the public.

Floriculture.—Among the many guides and helps issued annually by our numerous Seedsmen and Florists, treating on this beautiful art, none is more clear, none more tastefully illustrated and gotten up, than Nellis' Floral Instructor, which we have just received. It is published quarterly at the low price of 20 cents per year, and contains a complete list of Seeds, Plants, Bulbs, etc., at greatly reduced prices, and much useful information for all interested in gardening. He sends a sample copy and a packet of choice flower seeds as a trial to any one who sends him a 3 cent stamp. His address is A. C. Nellis, Canajoharie, N. Y.

Transactions of the California State Agricultural Society, during 1878.—Robert Beck, Secretary, Sacramento. We have a number of copies of the above report for free distribution. Parties interested can have the same by calling at this office.

The Cotton Worm.—Bulletin No. 3, from the Department of the Interior, by Chas. V. Riley, Ph. D. An exhaustive essay, profusely illustrated, on the treatment of this destructive worm. We invite the attention of all concerned to this important pamphlet.

Gardners' Monthly and Horticulturist, like wine, improves with age. The February number is full of good things, and on California subjects meets our wants and demands more decidedly than some of our horticultural magazines nearer home. The regular subscription price is $2.10. We will mail it and the Semi-Tropic California for one year for $2.50.

Climate.

War Department—Signal Service U. S. Army. Local Observations, Los Angeles, Cal., February, 1880.

Highest Barometer, 30.387; date, Feb. 1.
Lowest Barometer, 29.876; date, Feb. 16.
Monthly range of Barometer, 0.511.
Highest Temperature, 70.5.
Lowest Temperature, 33.5.
Monthly range of Temperature, 37.0.
Greatest daily range of Temperature, 34.5 deg.
Lowest daily range of Temperature, 6.5 deg.
Mean of Maximum Temperatures, 61.1 deg.
Mean of Minimum Temperatures, 40.4 deg.
Mean daily range of Temperature, 20.7 deg.
Total rainfall, or melted snow, 1.56 inches.
Prevailing wind, N. E.
Total movement of wind, 3,700.
Maximum velocity of wind and direction, 26 miles N. E.; date, Feb. 11.
Number of cloudy days on which rain fell, 4.
Number of cloudy days on which no rain fell, 1.
Total number of days on which rain or snow fell, 8.
Dates of frost, Feb. 1, 2, 3, 12, 13, 18, 19.

J. M. FRANTZ,
Sergeant Signal Corps U. S. Army.

Station: Los Angeles, Cal.
Date: March 1, 1880.

Many Northern and Eastern people are spending the winter in Los Angeles county, and all speak in the highest terms of the benefits they have derived from our genial climate.

Mr. P. Newhall, a prominent flour and grain merchant of Cincinnati, who is with us a few months for health's sake, tells us he is delighted with the climate, notwithstanding we call this the cold winter. His health is much improved here, and he weighs more than for many years. He has spent the past four years in Florida.

John H. Cotton came here last August from Sedalia, Mo., in a serious condition from lung trouble. He has gained thirty pounds in weight, enjoys good health, and intends to stay here.

We might enumerate hundreds of instances in which persons have come seeking and finding health. It is no longer a doubtful question that Southern California is the world's Sanitarium.

"I don't believe there is a section of country under the sun where a man can make himself and family so comfortable, happy, and delightful a home as here in Southern California," is the language of a New York gentleman in our office this week. And he made the remark in great earnestness, after having narrated his experience in the mild climates of the world during the winters of the last seven years.

ILLUSTRATIONS.

NOTHING can give eastern people a better or more accurate idea of our country and its advantages than illustrations of various places and objects of interest.

We have the pleasure of presenting several engravings in this number, and are satisfied they will continue to be appreciated by our patrons and many readers. The first illustration is of the beautiful residence of

WM. H. PERRY,

pleasantly situated on the east side of the river, on the Perry Villa Tract.

The grounds of this really fine place were laid out and set in shrubs and trees in 1876, and the picture shows the wonderful growth that has been made and can be made nowhere as in Semi-tropic California. The house was erected in 1877, and is among the finest of the many tasteful and elegant homes that abound in Southern California.

Mr. Perry started from Newark, Ohio, with Col. W. W. Hollister and brother, in 1853, driving large droves of sheep, cattle and horses, arriving in Los Angeles in February, 1854, and went to work by the day in the furniture manufactory of Gilchrist & Stone. In 1856 he started in business with Mr. J. D. Brady as partner, opening the first furniture store in the place.

In 1858 Mr. Woodworth bought Mr. Brady's interest in the increasing business, and the manufactory was moved on Main street, near the Pico House. They set up and ran the first engine ever ran in Los Angeles, continuing in that place until 1872, when S. H. Mott became a member of the firm, the style of the firm becoming PERRY, WOODWORTH & CO., now located on New Commercial street, where they have built a planing mill and established an extensive lumber yard, and are prepared to fill any bill of lumber even to the erection and completion of any building, on the shortest notice.

RESIDENCE OF WM. H. PERRY, LOS ANGELES, CAL.

DOTTER & BRADLEY.

Thirteen years ago this firm started in a modest, small way, in this city, with a capital less than one thousand dollars. The style of the firm was Rinaldi & Co., of which Jno. C. Dotter, the present senior partner, was the company. In 1872 the firm became Dotter & Lord; Mr. I. W. Lord, having bought out Mr. Rinaldi, remained in the firm two years, when he sold to Mr. C. H. Bradley. Mr. Lord still remains with the firm and presides over the office business, and is always ready with his genial cordiality to make his friends feel perfectly at home and in a good humor to buy a bill of goods.

$50,000 INVESTED.

The large stock now carried by this firm reaches nearly fifty thousand dollars, embracing everything usually found in a first class furniture establishment, besides carrying an immense stock of house furnishing goods, such as carpets, matting, oil cloth, linoleum, paper hanging in great quantities, shades, cornice, lace curtains, mouldings, frames, mirrors, brackets, bedding, upholstering, etc. To accommodate this immense stock the firm occupy the entire basement of the building, the two numbers on the first floor, and the entire floors in the second store, giving them a flooring of over 17,000 superficial feet, more room than that occupied by any other firm on the Pacific coast outside of San Francisco, and probably not excelled by many even in the metropolis.

In addition, they have a branch house, 116 Main street, with a full stock. The firm employs about twenty people, and attend to all business intrusted them with promptness and fidelity. Their reputation for first class goods and honorable dealing accounts for their success and long continuance in business.

DILLON & KENEALY.

The dry goods business is well represented in Los Angeles, and the firm whose name stands at the head of this article ranks as the peer of any. Messrs. Dillon & Kenealy commenced business in this city five years ago, and notwithstanding the "hard times" that we have just passed through, they have been successful beyond their most sanguine expectations.

There is a reason for all this, and it was made plain to us when we called on the firm, pencil and note book in hand, to write a pen picture of the inside of their splendid store rooms, to accompany the engraving on another page of this paper.

Mr. K. informed us that they did not do any blowing about their business, but, as we had asked about his business, he would show us their books. It was our duty, in Bradstreet's Mercantile Agency, for some years to do this very business of examining the books of various firms, on which to base a rating for credit, and we were at home at this work, although entirely out of our province in this article. We take the privilege of saying that we never had a better showing made us by any firm; their accounts with all the leading dry goods houses of the United States, each and every one, showed that all bills are paid, and their cash account is ample to discount all bills bought in the near future.

Here is a firm that is not dependent on any wholesale firm for credit; they go into the market as *spot cash buyers*, and buy where the best goods for the least money can be had.

Everybody understands that the coin will always command "bed-rock" prices, and so you will find Messrs. Dillon & Kenealy prepared to offer their goods at the lowest possible rates.

$65,000 STOCK.

This firm carries upwards of sixty-five thousand dollars worth of goods, embracing everything to be found in a first class establishment, including dry goods, notions, ladies' and gents' furnishing goods, etc.

These gentlemen are practical merchants, understand their business thoroughly, and treat every customer with the same courtesy, relying on low prices, good goods and honorable dealing for a continuance of patronage from their large list of customers.

RIVERSIDE.

THE CITRUS FAIR.

"By their fruits ye shall know them."

RIVERSIDE is known, and favorably known, for her fruits. It requires soil, water, and climate to produce such oranges, lemons, and limes as were exhibited at the recent fair. That the fair resulted in bearing good fruit, is shown in the demand for lands of the Riverside Colony; where choice fruits are produced, where happy and comfortable homes are made, where the climate is delightful, and where the society is of the best.

Riverside showed commendable enterprise, liberality, and pluck in giving this, their second, Citrus Fair. Their premium list was full and ample, and promptly paid to exhibitors who were so fortunate as to capture a prize. Their liberality and hospitality were the comment of all who visited the fair.

Great credit is due Messrs. H. J. Rodwell, A. S. White, and James Bellamy, executive committee, to the management of the fair, and also to all the citizens of Riverside, and we might say of San Bernardino County, to putting their shoulders to the wheel and making their fair a success.

A detailed report is unnecessary here, as it has been thoroughly given in the local papers.

The first premiums awarded were as follows:

For best budded orange, to W. C. Kimball, San Diego.

For best seedling orange, to T. W. Crowe, Riverside.

For best orange on exhibition, to a seedling grown by T. W. Crowe, Riverside.

For best lemon, to the Lisbon grown by J. W. Wakefield, Los Angeles.

For best display of lemons, to W. H. Russell, Riverside.

For best box lemons, to A. J. Twogood, Riverside.

For best figs, D. H. Kaufman; best olives, Mrs. E. J. Davis; best pickled olives, to W. C. Kimball, San Diego.

NEW YORK, March 26.—Large quantities of fine California oranges have arrived in New York. They were sold by some street venders at from five to fifteen cents each, and by others at the rate of six for twenty-five cents.

M. de Lesseps never indulges in alcoholic beverages.

AS OTHERS SEE US.

The correspondent of the *Salt Lake Herald* says, in his letter about Los Angeles County: The artesian belt is thickly settled, but there are thousands of acres of rich land yet seeking settlers, and fine opportunities are presented for colonies in the Azusa, Stearns and Arcadia farming settlements at very reasonable rates to actual settlers, and at a low rate to cash purchasers. No one man needs over forty acres of this rich land, for on all of it you can, with water, raise two crops each year. You can have new potatoes every month in the year; your strawberries and green vegetables every month from January to January; you need no barns, and as for houses, any shelter will do; plastering is not necessary; the climate is so uniformly warm that the year around the people live out of doors, under their vine-clad arbors, excepting in the rainy season, January and February, when they keep under shelter. The weather is not changeable like in Salt Lake. You can work in the hottest sun all day, and never hear of a sunstroke or prostration, while the nights are pleasant and cool, and in the morning every farmer rises refreshed and rested, ready for a manly day's work. Lightning, blizzards and storms are unknown.

TRANSPORTATION.

Los Angeles is one of the best located counties in this respect, having outlets by the Southern Pacific Railroad to San Francisco, or east from Lathrop; ocean steamers from Wilmington to Santa Monica, for Arizona or Yuma division, Wilmington branch, Anaheim and Santa Ana and Santa Monica railroads.

FULTON WELLS.

DR. FULTON—Dear sir: Inasmuch as I am daily enjoying that greatest of all temporal blessings, good health, the cause of which is attributable only to the great medicinal properties of your sulphur wells, I take this opportunity of testifying to you, and to the public through you, if you may see proper, the great benefit which I received from the use of the mineral water of your sulphur wells, both by drinking the water and bathing in it, both of which, I think, are necessary in cases of chronic dyspepsia, such as I was afflicted with, when on the twelfth of last October I first visited the justly celebrated health resort. Many of my friends in this county know, as I also do, what a great blessing in the hands of God your wells have been to me. I was then a weak, emaciated dyspeptic, weighing but 118 pounds; I now weigh 147 pounds, and feel like a new man, both mentally and bodily. I use no medicine, nor do I think any other remedy is necessary either for dyspepsia, liver complaint, or rheumatism, than your mineral water. I am no physician, and will not attempt to explain the why and wherefore, but this much I do know, "that whereas I was sick, now I am well," and that owing entirely to the use of the mineral water of your sulphur wells. Am truly glad that we have so valuable, and at the same time pleasant, a health resort in Southern California. I know it to be the best I have ever tried, for me, and I have tried many both in Oregon and California. I wish you would send me some more of your circulars or bills for distribution. Accept my kindest regards to yourself and amiable lady.

RUFUS H. ANNIS.

WILMINGTON, Cal., Jan. 27, 1886.

WE are obliged to leave out several articles prepared for this number, among them an article on "Carp Culture."

THE Emperor of Russia has presented Prince Alexander of Bulgaria, a war element, $7,000 value and several Krupp guns.

Agriculture.

THE AGRICULTURAL STATUS OF CALIFORNIA.

THE report of the Commissioners of Agriculture, for the year 1878, gives some highly interesting statistics, showing the agricultural productions of this State for that year. They are figures that should be read by all; by our own people that they may become cognizant of the fact that with our sparse population of less than three to the square mile, we have already attained to the front rank among our best agricultural States; and by those meditating a removal to our genial clime that they may be made aware that with an increase of population, which shall bring us up to the standard of the average Eastern State, California will become the granary and the fruit orchard of the world.

Familiar with the progress of the State since 1857, we were prepared for figures showing large results, but we must confess we were astonished to be apprised that California produced in 1878 one tenth of the wheat grown in the country! And had we met the statement that our wheat was worth more than the crop of the State of Ohio—the next largest producer—in a less reputable publication, we should have doubted the correctness of it. The tables of the report appear to be made up with great care, so we can find no justification for doubting what we have no inclination to disbelieve, and are pleased to find our State, hitherto celebrated for its genial climate and sands of gold, as famous for its immense crops of the necessaries of life. Our readers will hardly need an apology from us for devoting a little space to some of the facts of the report.

The entire wheat crop of the country for 1878, is given at 420,122,400 bushels. Of this amount California produced 41,990,000 bushels, or one tenth. The value of the entire crop was the round sum of $326,346,424, and the worth of California's portion thereof was $43,249,700, or about one ninth. Next to California in quantity stands Ohio, with her 33,120,000 bushels—8,870,000 less—and a valuation of $28,483,200, or $14,766,500 less than that of California. The yield of wheat in Ohio was about eleven bushels per head for each inhabitant, while that of California was about seventy-four bushels. The yield per acre in Ohio was eighteen bushels, and in California seventeen bushels, but our lesser yield was atoned for in the superior price, for our wheat averaged $1.06 per bushel, while that of Ohio averaged but 86 cents.

The same publication gives us the total valuation of the principal agricultural productions of each State. Here again California stands prominently in the foreground, there being but five of the old settled States ahead of her, and she has to overcome the valuable cotton and tobacco crops of the Southern States in asserting her supremacy.

Following are the only States that excel us in the value of their general farm products:

New York	$111,258,964
Pennsylvania	99,653,708
Ohio	98,799,593
Indiana	80,495,012
Illinois	115,122,385

The principal crops of California and their valuation are given as follows:

Indian Corn	$ 2,080,350
Wheat	43,249,700
Rye	146,250
Oats	3,001,500
Barley	9,717,500
Potatoes	4,290,048
Hay	16,027,310
Total	$78,512,658

It will be noticed that our immense fruit crop is not taken into the account, neither is our wine, wool or honey accounted for, or our dairy products. We draw upon other sources, and estimate in part, to give an approximation of our total productions, that the reader—more especially a distant one—may know the magnitude of our annual harvests, and the immense wealth being yearly brought out of the bosom of mother earth:

Agricultural Products, as above	$ 78,512,658
Gold and Silver	20,000,000
Wool	8,000,000
Sheep	11,091,290
Horses and Mules	13,700,718
Cows, Oxen, etc	31,002,740
Hogs	3,361,750
Fruit and Wine, estimated	3,000,000
Dairy Products, estimated	2,000,000
Total	$170,579,156

Having no reliable figures at hand we are unable to give any estimate of our coal, quicksilver, lumber, honey, small vegetables, beans, petroleum, and manufactures, but unquestionably they would swell our total to $200,000,000 or above.

It is remembered that among her sister States, California ranks twenty-fourth in point of population, and second in size, having an area of 188,981 square miles, or 120,957,540 acres. Our principal crops, given above, were grown on 4,036,900 acres, which is but about one thirtieth of our total area, and leaving us for other uses the immense breadth of about 117,000,000 acres. We find, also, that we have but 2.29 inhabitants to the square mile, or about 216 acres of land to each inhabitant. In point of population to the acre we rank thirty-fourth. Massachusetts ranks as first, with 186.84 inhabitants to the square mile, Rhode Island, second, with 166.43; Connecticut, third, with 113.13; New Jersey; fourth, with 108.91; Illinois has 45.84; Ohio, 66.69, and Pennsylvania, 76.56.

It will be seen that our sparse population has made a good record in cultivating the soil, distancing as we have most of the old populous States. And, with our present status to build upon, we are almost lost in contemplating the immensity of our harvests, when our State shall have become as populous as are Massachusetts and Rhode Island, and when the hands of intelligent industry shall put all of our valleys into grass and grain fields, and our hillsides into orchards and vineyards. If the goverment statistician is correct, our wheat yield of 1878 would have loaded 83,980 cars, with fifteen tons each, and with one freight train of twenty cars per day, as now run by the Southern Pacific road, between here and San Francisco, it would take eleven and a half years to move the crop! 41,990,000 bushels of wheat would load 629 ships with 2,000 tons each, and keep the proposed Isthmus canal busy the entire year, passing them from the Atlantic to the Pacific and return? If these statistics are correct, with an increase of laboring farmers, the quantity can easily be doubled, and possibly quadrupled. With such an increase, how inadequate are our facilities to get it to market; and with a large increase certain, it is not surprising to see the capitalists of the East and Europe struggling for opportunities to share in the immense traffic we shall soon have to offer, and it is not attempting the prophetic to express the belief that all the projected railroads, and the Isthmus canal as well, will be required to meet the wants of this coast ere another score of years shall roll away. Twenty-three years ago the East and Chili fed us with flour; now our flour feeds China, the islands of the sea, the East, and the old monarchies of Europe. Then gold was king, and the dwellers in the "cow counties" were held in derision; but the sceptre has changed hands, and Ceres reigns triumphant, and the "bonanza kings" will never resume the throne. The pick and shovel make a showing of but $20,000,000, while the plow and the reaping hook go them "better" to the tune of $180,000,000. It is certainly a gratifying showing, and we bow to the new regime, and sing: "Long live Ceres, the queen of the husbandman, the feeder of the nations!"

R. R. H.

FENCING AND FENCES.

This important subject comes home to every owner of a farm or of a village lot that requires inclosure. At a meeting of New Hampshire farmers, several gentlemen publicly offered to sell their farms for less than what the existing fencing on them had cost. In a recent address at an Agricultural Convention, Mr. A. W. Cheever, editor "N. E. Farmer," said he had carefully gone over the statistics of farms, animals, crops and cost of fences, and found that: "It takes, on the average for the whole country, $1.74 worth of fences to keep $1.65 worth of stock from eating up $2.45 worth of crops."—*Am. Agriculturist.*

In Southern California, the useless and expensive luxury of a fence is dispensed with, as we have a stock law in full and complete working order. You can ride for miles through orchards, vineyards and along the growing crops, which no fences are required to protect, and which are more secure than if inclosed by a double post and rail fence.

The cost of fencing in the East might be added to the price of lands here, and still our lands would be cheaper than those elsewhere, when the productive qualities are considered.

THE UNIVERSITY OF SOUTHERN CALIFORNIA, LOS ANGELES.

KNOWLEDGE is power, and every man wants for himself and his children all the power he can get. One of the first inducements, therefore, to settle in a place is the facility for educating. Los Angeles offering all the salubrity of climate and beauty of mountains, plains, islands and ocean of ancient Greece or Italy, has already taken steps to found a University that will in time rival the universities of other lands. We can not present to the reader a clearer and better idea of the foundation and prospects of the New University than by publishing the deed of trust providing for the endowment fund of the University. Omitting the description of over 300 city lots, it is as follows:

This Indenture, made this twenty-ninth day of July, 1879, between O. W. Childs, J. G. Downey and I. W. Hellman, of Los Angeles County, California, parties of the first part, and A. M. Hough, J. P. Widney, E. F. Spence, M. M. Bovard, G. D. Compton and R. M. Widney, as trustees of the express trust hereinafter set out, parties of the second part, and "The University of Southern California," a corporation which said second parties agree to procure to be incorporated under the laws of the State of California for educational purposes, the beneficiary herein and party of the third part: Witnesseth:

That whereas said second parties are desirous of providing and establishing an endowment fund for the support and maintenance of said University, party of the third part herein, the yearly income from which endowment fund alone is to be used for such support and maintenance, and is to be paid by said second parties to the Directors of said University, as hereinafter set out; now, therefore, said first parties hereby grant to said second parties in trust all of the following described lots, pieces or parcels of land situated in "West Los Angeles," Los Angeles County, California, to wit:

(Description of over 300 lots.)

To have and to hold in trust for the following uses and purposes, to wit:

First. Said second parties shall proceed to sell and convey any and all of said lots at such times and for such price and on such terms of payment, but not for less than $100 per lot, as said second parties may deem best; save and except the lots reserved for building purposes. * * *

Second. The funds received from the sales of said other lots less costs of sales and expenses and improvements not to exceed fifteen per cent. of the price received, shall be and forever remain an endowment fund, the net income from which shall be for the use and support of said University, to be established as aforesaid, provided that from the first sales of lots the sum not to exceed $500 may be used for expenses of properly placing the property on the market, and from the next money received $5,000 shall be used for the purpose of erecting a college building on said site or campus.

Third. Said second parties and their successors shall invest said endowment fund in State, county, city or national interest-bearing bonds or securities, such as may be safe, or said fund may in whole or in part be loaned on first security on real estate with good title; but such loans shall not exceed thirty per cent. of the actual cash value of the property on which the loan is made; no loan shall be made on any property belonging to the beneficiary herein. No part of said property herein conveyed shall be mortgaged or incumbered while belonging to or held by said second parties. No mechanics' liens shall be valid or binding against the title or interest of said second parties in said land, or the interest of said third party therein.

Fourth. The annual net income from said endowment fund shall be subject to the payment of warrants in their order drawn thereon by authority of the Board of Directors of said University, said income to be used in establishing and supporting said University. The outstanding warrants shall not be in excess of the income for the year in which they are drawn, all others shall be void.

Fifth. Said Trustees, second parties herein, shall have the power to elect or appoint their successors, and to fill any and all vacancies occuring in their number. A written appointment, signed by a majority of the Trustees holding office at the date of signing, shall constitute a valid appointment herein as Trustees. In case of entire vacancy in said Trusteeship, the Southern California Conference of the M. E. Church, if in session, may fill the vacancies, or if said vacancy shall not then be filled, then any Court of record may, upon petition, fill said vacancy. A majority of said Trustees shall be members of the M. E. Church. The action of a majority of said Trustees shall be sufficient to make valid any contract within the scope hereof, said action to be in writing signed by each of said majority. After three years the office of one of said Trustees shall become vacant annually on the first Monday of June of each year, so that one vacancy may be filled each year, the order of vacancy to be determined by lot. Each Trustee elected or appointed after said three years shall hold office for six years. Unexpired terms shall be filled only for the unexpired part thereof.

Sixth. For any misappropriation of said funds or conversion thereof, directly or indirectly, by permission or gross neglect or carelessness, the Trustee or Trustees blamable therefor shall be personally responsible to repay and make good the amount thereof, so that said fund may never be diminished, and so that the income thereof may be used as herein stated.

Seventh. Said Directors of said University shall have the right of inspection into the accounts, books and records of said Trustees, and into the condition of said endowment fund and its securities, and the income thereof, and on behalf of said third party, may maintain any action necessary to preserve said fund as herein designated against said Trustees, or either of them, for any misappropriation or conversion of said fund, or any part thereof, or to prevent any such misappropriation or conversion, or to prevent any act that would so result. Any one or more of said Trustees may maintain any action necessary for the purpose of preserving and protecting said fund and the income thereof, for the use and purposes herein intended.

Eighth. Said Trustees shall not receive as compensation for their services to exceed five per cent. of the annual income received. All expenses are to be kept down to the lowest reasonable amount. Said Trustees shall have their office and place of business in a suitable room in some of the University buildings after the same shall be erected, and said office shall be free of rent. The clerical work of said Trustees shall be performed by students in said University, if any desire to perform the same, for a compensation as reasonable as any one else will perform it.

Ninth. Said University and Corporation to be under the control and management of the M. E. Conference of Southern California, or such other Conference as it may be changed into.

Tenth. Said University is to be incorporated and put in operation at such time as said second parties shall deem advisable.

Eleventh. Said University building hereinbefore alluded to must be completed within three years from the date hereof; provided that sufficient funds be received from the sale of lots or from any other source to pay for the same, the cost of said building to be $5,000 or more, and is to be commenced within two years from date hereof. In witness whereof— (Signatures.)

The foregoing property is situated partly within, and the rest adjacent to, the south-west corner of the corporate limits of Los Angeles city. A street railroad now in operation passes through the tract and ends in the business center of the city. The Santa Monica Railroad has a station and depot on this tract. The land is level, so that there will be no expense in cuts or fills in grading streets. The soil is a rich gravelly loam, such as is best adapted to all classes of trees, vines, shrubs and other vegetation. Surface water is within 30 feet. At a depth of 60 feet a fine stream of water is reached, protected from surface drainage and impurities by an overlying bed of clay.

The property will be found every way desirable for homes.

Lots will be sold on easy terms of payment. The general plan of sale will be a payment of one third on each lot cash, balance in five annual installments if desired, with interest at the rate of ten per cent. per year. This plan will be varied from to suit purchasers. The Trustees expect to realize from this whole property a net endowment fund for the University of not less than $80,000 during the next ten to twenty years. They intend to make every effort concentrate in realizing the largest endowment fund, so that a living University free of debt, with a steady yearly income for its support, may be maintained as provided in the foregoing deed.

The late Bishop Haven, when in Los Angeles, in September, 1879, visited this property and thoroughly examined it, and with his prophetic business foresight said of this enterprise: "These lots lie along the horse-car track; near by are several elegant estates, and are already of much value. They will net at least one hundred thousand dollars to the University."—*Christian Advocate*, Oct. 23, 1879.

For the purpose of erecting the building referred to in the second and eleventh provisions of the foregoing deed, the trustees are offering the first thirty lots (to be selected by the purchaser), at $200 each, cash. After these are sold, no lots will be sold for less than $300 each. Already a number of lots are sold and contracted for.

Title perfect.

In addition to the above lands, there have been donated 37½ acres by adjoining property owners, on the same terms of trust as the foregoing deed.

Persons interested in this matter are invited to co-operate in every possible way.

TEN ACRES IN BEETS.

Every farmer can plant a few acres of beets, and make some ready cash. A farmer and his boys will every year have some time to devote to business, other than generally called farm-work. Now, here are some figures taken from actual experience:

Ten acres of land, rent	$ 5 00
Plowing and harrowing	25 00
Planting with drill	4 00
Seed for planting	10 00
Cultivating four times	16 00
Digging and hauling 200 tons	150 00
	$210 00

Ten acres will produce 200 tons, or 20 tons to the acre. At $4.00 per ton, the sale of this crop would amount to $800. Net profit, $590.

If the farmer and his boys do the work themselves, living off of the farm, they will only be "out" ten dollars for seed, and say ten dollars for incidentals, and they find, when they sell their crop of beets for $800 cash, they have $780 left, a profit of $78 per acre. Anybody can do it—try it.

R. Nadeau has planted seven hundred acres in sugar beets, and the prospects are good for an immense yield. We predict that he will make $25,000 clear coin by the operation.

Mr. Th. Ernest Gennert will have his sugar factory in full operation by the 1st of July; the work is progressing satisfactorily, and Los Angeles will soon be using sugar and syrup made at home.

VICTORIA REGIA.

CROWNING GLORY OF WATER LILY HOUSE, GOLDEN GATE PARK, SAN FRANCISCO, CALIFORNIA.

IN this number of the Semi-Tropic California, we present our readers with a description and illustrations of the most beautiful and rare of all aquatic plants.

It is exceedingly difficult of cultivation, and even in its home seems to find few congenial localities; at least it is so seldom

Fig. 1.—Young Plant.

seen that travelers are often compelled to go hundreds of miles out of their course to see it in its native *habitat*. But it is Queen of the Aquatics, and when successfully cultivated yields a more than satisfactory result.

The first plant grown in the United States was produced at Springbrook, near Philadelphia, by Mr. Caleb Cope, in 1851.

Since that time many attempts have been made to grow it, but without success. The only plant now in this country is in the Water Lily House, at Golden Gate Park, at San Francisco. While in bloom several months ago, it was visited by thousands of delighted flower lovers of the city.

The Victoria Regia is a native of South America, and was first seen by a Spanish botanist, in 1803, while on a canoe voyage on a tributary of the Amazon. Its peculiar natural home is directly under the equator, and is confined to a strip of country about sixteen hundred miles wide, or fourteen degrees on each side of the equator, and from east to west a distance of about thirty-five degrees of longitude, from the Atlantic Ocean to the Andes.

Fig. 1 shows the young plant with five leaves.

Fig. 2 shows the same leaves in the second stage of growth.

Fig. 3 shows three forms of leaves in their natural condition before unrolling.

They come to the surface before unrolling, and while unfolding are exquisitely beautiful, rivaling even the flowers themselves, being pale green on the upper surface and rich purplish crimson beneath. They often measure from six to twelve feet in diameter, with margins uniformly turned up. Their texture is thin and tender, but by placing a light board upon the upper surface a full grown man may stand upon one, though a straw, falling perpendicularly upon the same leaf, from a height of of five feet, would penetrate the delicate surface.

The wondrous beauty of the bloom must be seen to be appreciated. It is from fourteen to twenty inches in diameter and contains sixty petals, arranged in distinct rows. It first opens in the evening a little, when it is pure white and exquisitely fragrant. In the morning it again folds up, and unfolds again in the evening, when it is a deep pink, or rich crimson; or crimson and white feathered. At noon the flower closes, this time loosely, and at evening expands again, but for the last time, as it soon fades and sinks under the water and is gone, like a beautiful vision from fairy land.

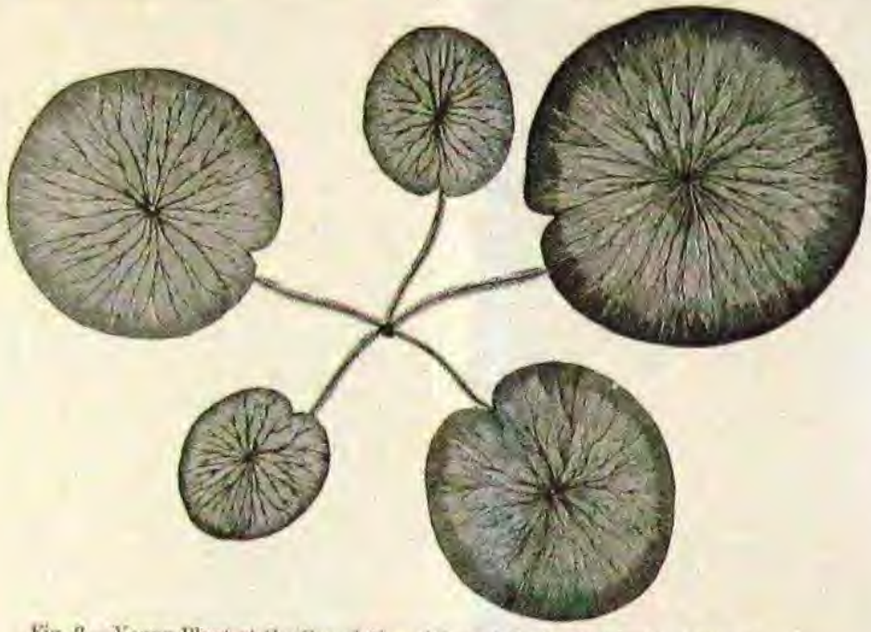


Fig. 2.—Young Plant at the Completion of Second Cycle of Growth of Five Leaves.

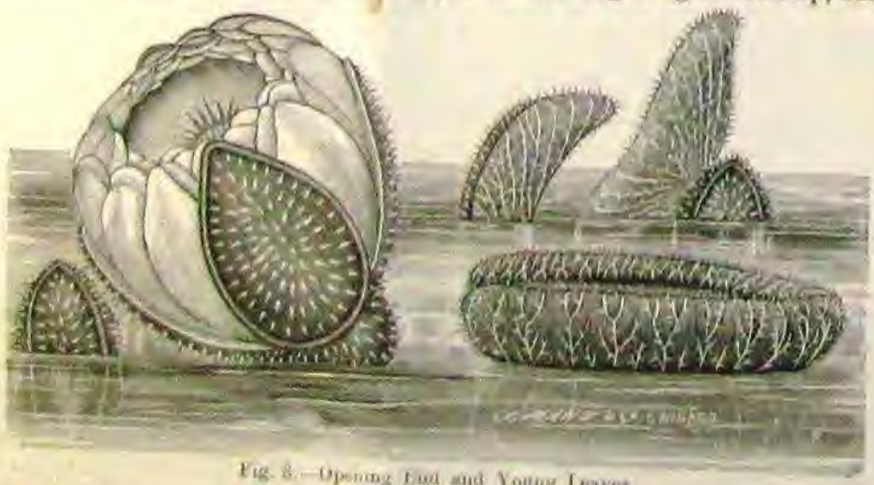


Fig. 3.—Opening Bud and Young Leaves.

PASADENA'S PROSPECTS.

EDITOR SEMI-TROPIC: As many of your readers are already aware, Pasadena is one of the most thriving and promising sections of Southern California. Your correspondent recently visited some of the delightful orchards and vineyards of this young settlement, and will give his impressions of the place, thinking they may not be uninteresting to some of your readers in search of new homes. Pasadena is situated about seven miles from Los Angeles, on elevated land, a short distance from the base of the Sierra Madre Range, and, during the past six years, has made unprecedented progress, both in settlement and cultivation. The ride here from Los Angeles is by no means a disagreeable one at any time, and when undertaken during the vernal season is exceedingly enjoyable. The road winds in and out of picturesque cañons and live-oak groves, until the sloping hills and neat cottages of the settlement are reached. The first inquiry of tourists is naturally for a hotel, and until recently they would have been disappointed, but we are pleased to be able to state that Mr. Griswold has filled the want long felt, and at the Lake Vineyard House is attentive to the wants of travelers.

SCHOOLS AND CHURCHES.

The Methodists and Presbyterians have both neat church edifices, and the principal public-school building is highly creditable. It has recently been completed, and cost $3,500, most of which was raised by private subscription. Prof. Hall is in charge, and reports that his pupils are progressing satisfactorily. The village has also a general merchandise store, conducted by Mr. Williams; a butcher, blacksmith shop and post-office. Mr. Wallace, an energetic citizen on the borders of the settlement, put up last season 5,000 cans of peaches, the fruit being all grown on his own place. A fruit drying association is also talked of, and would undoubtedly prove a valuable acquisition.

AMONG THE ORCHARDISTS.

Pasadena is rapidly becoming a beautiful garden, and a close inspection of the young orchards can not but convince the visitor that it is destined to become not only a great fruit producing region, but that the quality of the fruit will be exceptionably fine. The past winter was unprecedently cold everywhere on the Pacific Coast, and we regret to state that Pasadena did not escape entirely without injury. Many lime trees and hedges were killed, but nearly all the orange and lemon trees escaped without much damage. It is quite improbable that such severe cold will visit us again for many years.

We examined most of the principal orchards in the place, and were everywhere pleased with the thrifty appearance presented. The fruit growers of this locality believe in *thorough* cultivation; the plow is kept constantly going, and the gopher, scale-bug and other enemies of the young trees carefully guarded against. At Dr. Conger's, we saw a curiosity in the shape of a Konah orange tree, with fruit in six stages of development, blossoms, four sizes of green fruit, and the perfectly ripe orange. Mr. W. T. Clapp showed us some specimens of fruit, which we have never seen surpassed, even by the best importations from the tropics. His orange trees are perfectly clean, and his lemon and lime trees are bearing quantities of marketable fruit. He has also guavas bearing, and a large deciduous orchard. In connection with Messrs. Bennett Bros., Mr. Clapp recently made a large shipment of nursery trees to Riverside, where it seems the quality of Pasadena trees is appreciated. An examination of the places of Messrs. Jewett, Mundell and McQuillan was very satisfactory to us, as all were in a high state of cultivation, and the owners seemed pleased with their prospects. Mr. Rosenbaum has 15 acres in the old tract, with 300 orange, 75 lemon and 100 deciduous trees. He has also some promising cherry trees. Mr. Bristol, one of the oldest settlers, is also the owner of 15 acres, with 400 orange, 100 lemon and many deciduous trees. Last season, 50 of his peach trees bore for the first time; he dried the fruit, and sold it for $58—a fair return. Mr. Jacob Weingarth is a new comer, and busily engaged in putting out trees and vines.

Mr. Hallet is also a new-comer, and has purchased a place already somewhat improved. Mills Bros. are the owners of a nursery, conveniently situated in the center of the settlement. They have a fine stock, and find a ready demand for their trees. Mr. Mills informed us that a few months ago he decided to sell several acres—the price was set at $2,000—but when a purchaser came along, with the gold coin, he decided to hold on a while longer. Mr. Wooster, the possessor of 10 acres, nearly opposite, came here afflicted with a severe catarrhal affection; a few months of our sunny climate cured him, and he is now a robust man. Martin Bros., two enterprising young men, have a fine seedling orange orchard, which looks very thrifty and will probably come into bearing next year. Mr. Williams and Capt. Jones both have promising orchards, which they are confident will yield them large returns in the future. Messrs Muller and Heydenrich have places adjoining; both came here from New York two years ago, and both by hard work, with the advantage of a good location, have accomplished wonders. Mr. Muller has 30 acres with 2,000 orange trees, Mr. Heydenrich 10 acres with 900 trees.

The Mutual Orchard Company, of which Mr. C. F. Hopkins, of the California Insurance Co. is the principal stockholder, has purchased a tract of 250 acres about a mile from the principal settlement. Mr. Hopkins has built a handsome residence, furnished with all modern improvements, for the manager, Mr. C. C. Brown, formerly of Fruitvale, Oakland. He has put the place into excellent condition, and there is already a young seedling orchard of 206 acres. The remainder of the land will be put to various uses.

Mr. Townsend, the proprietor of 20 acres, with a flourishing orchard upon it, is putting up a new house, the estimated cost of which will be $1,500. Mr. Ball has the only brick house in the settlement—a fine-looking two story structure, with an extensive orchard laid out around it, comprising 250 orange trees, 250 deciduous trees, and 2½ acres of vines. Mr. James Smith showed us a large number of fine trees, comprising orange, lemon, lime, Japanese persimmon, peach, apricot, pear, nectarine, fig, plum and prune, besides the small fruits, blackberries, raspberries, strawberries, etc. Messrs. Porter and Green have bearing orange, lemon and lime orchards, which gladden the eye of the visitor with their golden fruit. Mr. James Campbell has a delightful place, commanding a fine view. His orchard contains 500 orange, 150 lemon and 350 deciduous trees. Mr. J. Gilmore has 7½ acres with an elegant residence—the finest in the place. He is certainly to be congratulated upon his pleasant situation.

We have not space in this article to relate all the improvements we saw in progress in the neighborhood of Pasadena; but from time to time we shall endeavor to keep our readers posted concerning this delightful locality. It is certain that hard labor and small returns for the first few years must be expected by all new comers with small capital, and their future depends upon themselves. The climate is nearly perfect, the scenery both grand and beautiful, the society made up of the best families from the older States, the schools good, the water pure and abundant, and the soil easily worked and very productive. But while success with all these advantages is not always attained, yet we think that for persons with moderate capital, to enable them to get a good start, Pasadena presents an inviting field. J. C. P.

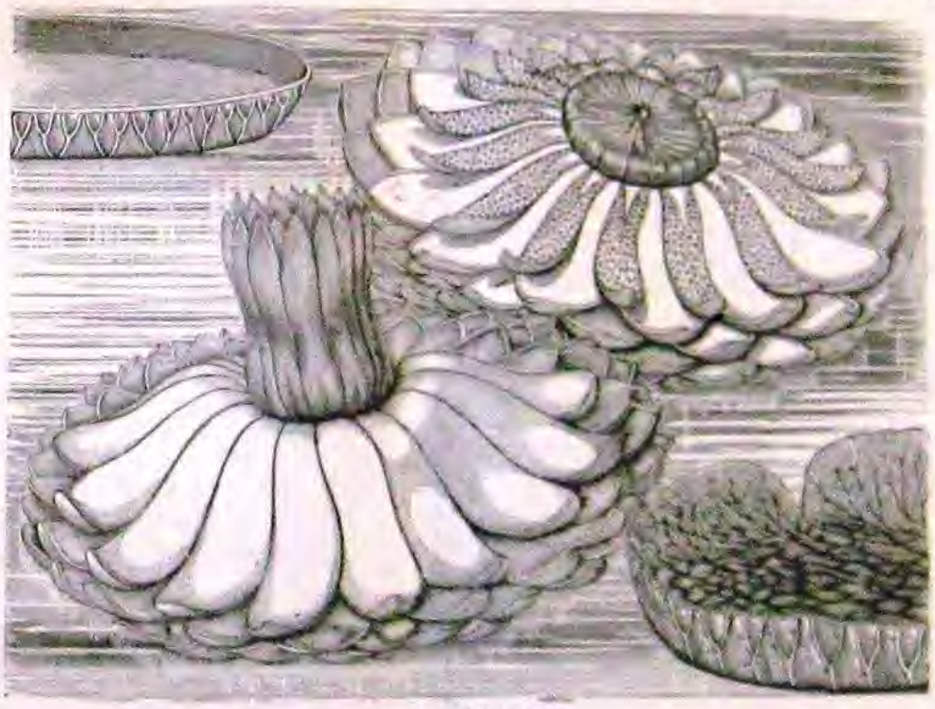


Fig. 4.—Full Bloom.

ROSES.

No other flower gives so liberal a return for care as the rose. It should be abundant in every garden or yard, and especially in the poor man's restricted home place.

The best and hardiest plants are obtained from cuttings and the main rose blooming of the garden will be most satisfactorily obtained from roses on their own roots. The trouble with most budded roses is that they send out suckers from the base or along the stem. A rose tree or two makes a pleasant variety in the yard, and is easily produced by grafting a fine rose into a common stalk two or three feet from the ground. Marechal Niel, Glory of Dijon and Cloth of Gold are good varieties for this purpose.

Special inducements to Eastern people to subscribe, see Cover.

Horticulture.

LOS ANGELES AT THE EXPOSITION.

By John H. Shields.

CUZCO CORN.

The following facts of the Cuzco corn at the Exposition, were transmitted to Governor Downey:

The sample of Cuzco corn on exhibition was grown in Peru, at an altitude of eleven thousand feet; makes meal equal to wheat flour; fifteen hundred pounds, like the sample at the Exposition, had been imported into Los Angeles, to be sold at one dollar a pound, for seed. I have obtained the following facts of the variety known as Cuzco corn, from Mr. J. Grelck of Los Angeles. Cuzco corn is the largest and finest corn known. The grains are very large, flat, and the inside is almost ready-made flour. The first Cuzco corn seen by Mr. Grelck, was on exhibition at the capital of Peru. It was in the ear; the ears are very large. After returning from France, about five years ago, Mr. Grelck being anxious to test the Cuzco corn in Los Angeles, ordered about ten pounds from Lima, which arrived here on the 1st of May, and which Mr. Grelck planted on the 2d of May. The corn germinated quickly, soon came up; grew rapidly, attained a height of stalk of from fourteen to sixteen feet, produced from two to four ears, almost at the top of the stalk. The ears matured about the close of December. Mr. Grelck differs in opinion from those who maintain that the Cuzco corn will mature in a short season of growth. He believes that a high range of the mercury, through a long season, are necessary to the perfection of Cuzco corn. He said that Mr. Nilmornin, of Paris, one of the most reputable seedmen in France, told him, during his visit to Paris, what his own experience has confirmed in Los Angeles, with respect to the degree and the duration of heat; the season of growth. Thinks he noted a defense of the same position in the Pacific Rural Press. Mr. Grelck's first crop of Cuzco corn, raised in Los Angeles, mixed with the common corn on the neighboring premises to such a degree, that the grains of the first Los Angeles harvest of Cuzco corn had assumed nearly the shape of the common corn, and the quality of the flour was between that of the Cuzco and that of the common corn. Mr. Grelck, of course, advises the planting of Cuzco corn at long distances from other varieties. He noticed the liability of the Cuzco corn to be prostrated by the wind, and, therefore, advises against planting where it will be exposed to strong winds.

THE SUGAR INDUSTRY.

Thousands will remember the huge column of cane so conspicuous at the Exposition. It was composed of ordinary indigenous cane, and two varieties of tropical sugar cane. At the base of the column, there were sugar beets from Anaheim, which polarized 13 per cent. of sugar. There was a barrel of beet sugar from a Central California Sugarie. There were quantities of dried sugar beets. They seemed as dry, hard and flinty as horn shavings. They had been dried in the sun; some at Santa Ana, Los Angeles County, the rest at Riverside, San Bernardino County. Mr. Rudisill, of Riverside, had supervised the drying of the beets there. Precisely at noon, on the sixteenth day of October, 1879, 100 pounds of freshly cut sugar beets were exposed to the sun, at Riverside. At noon, the next day, the 100 pounds had dried out to 29¾ pounds, and by noon on the eighteenth to 25½ pounds. By the cane column there was also on exhibition loaf beet sugar made in Germany. Mr. Ernest Th. Gennert manufactured the loaf sugar at his sugarie in Germany, at Warrenton, the name of his German establishment, which was named by Mr. Gennert for his relative by marriage Joseph Warren, Major-General in the Revolutionary Army, and who fell in battle at Bunker's Hill, June 17, 1775. Mr. Gennert expects to be turning out beet sugar from his own Los Angeles sugarie before the recurrence of the annual fairs of 1880. Mr. Gennert, the widely known veteran of the beet sugar industry west of the Atlantic, is settling down in Los Angeles, and investing his money in a beet-sugar factory, upon the deliberately derived conclusion that in all his travels, stoppings, observations and experiences in Europe, South America and North America, he has met with no place as in Los Angeles, where one can have such a lavish production of the beet, and such a sunshine, waiting for the beet to mature, and then drying it thoroughly in 48 hours.

BUTTER DAIRY.

If one is in doubt about Los Angeles as a dairy county, a convenient way of dispelling the doubt is to visit the annual exposition. At the last one there was a cheese weighing 160 pounds, as noted in a previous letter. Rose & Rose, of Ballona, exhibited excellent butter. Also, Marcellus Bixby, of Compton, L. A. A. Gery & Sons, of Westminster, M. W. Talbot, of Compton, Mrs. J. M. Parker, of Orange, and Lambourne & Turner, of Los Angeles City. These samples came from points pretty well distributed over the dairy or alfalfa belt of the county, and were, without exception, such as would be considered good butter anywhere. Another cheese dairy will soon be in operation in Compton.

A CURIOSITY.

Mrs. S. A. Price exhibited preserved rinds of watermelons upon which were carved, in perfection, flowers, foliage, fruit, fish and numerous other representations. The melon rinds thus beautified were none the less on the list as preserves. A unique combination of cuisine and the fine arts. The carvings were made with a penknife by the exhibitor, Mrs. S. A. Price, of Georgia, now visiting relatives in Los Angeles. Visitors, whom Mrs. Price gracefully entertains without interrupting the aesthetic by-play of thus beautifying surfaces, speak of the ease, perfection and rapidity with which representations of flowers, foliage, or of other models, flow from the point of the knife blade, adding to, rather than diminishing, the pleasure of the conversational feature of the visit.

The Land not all Taken up.—There are over 500,000 acres of unsurveyed land in Kern county, and at least 200,000 acres surveyed and subject to entry, some of it is as fine land as God's bright sun ever shone upon; yet it is doubtful if there are fifty persons in the whole country who are aware of the fact, because they have never been informed, and because a very erroneous and unfounded statement has been bruited about that all the land that is good for anything has been taken up by a few large landholders, than which nothing could be further from the truth.—*Kern County Californian.*

L. Barnes, of Duarte, has laid some splendid specimens of oranges grown on his place, proving that this is an excellent orange-growing district. The specimen is one of one hundred and twenty from a four-year-old lemon stalk. Our test failed to discover any lemon in the taste.

THE STEARNS RANCHOS

IN THE GREAT VALLEY OF LOS ANGELES.

Ed. Semi-Tropic, Cal.—The great valley of Los Angeles County lies between the foothills of the Sierre Madre and the sea coast, is about 40 miles in length, by about 20 miles in breadth, and contains about 800 square miles. Of this total area about one half is composed of low mesa, or comparatively level table lands; and the remainder of valley, or bottom lands; both classes of land possess extraordinary fertility. The mesa land has a rich dark chocolate colored soil varying from 10 to 50 feet in depth, in which is found an occasional smooth rounded pebble, showing that it is an alluvial deposit of very ancient origin. The fertility of this soil seems to be in exhaustible; in its uncultivated state, the clover and alfilarilla grow from 1 to 3 feet high, and it is famous as pasture land; it is also admirably adapted to the production of wheat and other grain, but on account of their freedom from frosts, they will ultimately be used, almost exclusively, for vines and fruit. It has been proved, by experience, that the grapes grown on the mesa soil make a finer and more delicate flavored wine, than those grown on the valley lands.

The valley lands are of a more recent formation, and over the layer of rich soil from 6 to 10 feet deep, which covers their surface to the deposits made during the overflows of the Santa Ana and San Gabriel rivers, which risings in the Sierra Madre mountains, flow westerly through the valley to the sea. The soil, which covers the surface of the valley, is simply an accumulation of the rich mud, washed from the surface of the lands, on the head waters of these rivers, and deposited by their overflow during past centuries. On most farming lands there is a thin stratum

of rich soil on the surface, whilst below there is nothing but a poor hardpan containing but little fertility, and when the surface soil is exhausted by the continuous cropping, which most California farmers practice, the land becomes entirely worthless; but these lands seem to have been so liberally supplied with fertility, that the most exhaustive and continuous cropping seems to have been an advantage to them, as the grain crops raised upon them constantly improve, producing a less growth of straw, and a heavier and better quality of grain.

The valley lands contain a great variety of soils, and are adapted to a vast variety of crops. They have long been famous for their crops of corn, squashes, and alfalfa, on the low wet lands near the sea, and the barley crops on the higher parts of the valley; but now these last named lands are being almost exclusively devoted to the culture of wheat, which yields largely, and is found to pay much better than barley. The same lands will, this year, be tested for the production of sugar, from both beets, and sorghum on a large scale. Enough has been done heretofore with both to make a favorable result almost a certainty.

The more elevated valley lands, which are peculiarly protected from frost and violent changes of weather, are in places planted largely to vines, and citrus fruit trees, with very successful results; and these plantations are being extended rapidly, particularly in vines. The vineyard interest will probably become the leading agricultural pursuit in Southern California.

The Stearns Ranchos occupy the center of the great valley, in its best and broadest part. They are lands purchased by Don Abel Stearns at a time when he had the opportunity to select the choicest lands of the whole county, and comprise five ranchos, lying adjoining to each other, which contain in the aggregate 140,000 acres of land; of these about 60,000 acres have been sold, and have been occupied, improved and cultivated by the purchasers, leaving some 80,000 acres still unsold, from which those who want lands can choose the kind adapted to their needs, in large or small tracts at low rates, and on easy terms of payment. There are several large and flourishing settlements scattered at convenient distances, in this large tract, and purchasers can either buy near one of the different settlements, or if they wish land for a new colony, there are large spaces yet unsettled where they can locate and form a settlement of their own.

These lands have great advantages in the way of transportation—a branch of the Southern Pacific Railroad—which through the Central Pacific is connected with the whole railroad system of the country, runs through the center of the tract, and its depots are convenient of access from all parts of it, and as in the south-west it borders on the Bay of San Pedro (an indentation in the coast protected from the heavy ocean swells by Catalina Island), the land has equal advantages of shipment, both by rail or steamer, with the additional advantage, that the competing lines will always keep the rates low, and those who settle here will never be at the mercy of the transportation companies. In addition to this, the Southern Pacific Railroad Company intend to continue building until their road reaches the Gulf of Mexico, either at Galveston or New Orleans, and in the next two years, or less time, we will have a southern overland road, below the snow line. So that we have now, and will have in the near future, abundant railroad facilities, independent of any that the Atchison and Topeka R. R. Co. may or may not give us.

The principal settlements on this tract are Anaheim, Westminster, Garden Grove, Centralia, Artesia and Norwalk.

Anaheim is the famous German Settlement, which commenced some 20 years ago. The settlers gave almost their entire attention to the cultivation of the vine, and the settlement is a grand success. Eleven years ago, the Stearns Ranchos were subdivided, and offered for sale in small tracts, and other parties settled about the town, and now the population is about 2,000. It is 13 miles from, and elevated 160 feet above the sea level. The town is surrounded by admirably kept vineyards, orange, and other fruit orchards. Anaheim has the well deserved reputation of having the best climate in Southern California, and at the same time of being freer from frost than any other place in the State of California. These, in addition to her other recommendations, make it the most desirable locality for settlement in this section. The daily sea breeze comes to it 21 miles overland, and acquires just the proper degree of dryness to suit delicate lungs, and at the same time is sufficiently moist. The soil is a warm, sandy loam, which absorbs and retains moisture, *but is always dry on the surface*, and no matter how heavy the rain, the water is absorbed, and there is no mud. It is a very desirable climate for invalids.

Westminster and Garden Grove are two contiguous settlements, distant about 6 miles from Anaheim on the way to the sea. They cover an area of about 10,000 acres, and are located in the interval between the drier and the low, wet valley lands. They raise large crops of corn, alfalfa and grain, and maintain many dairies. The soil seems admirably adapted to the production of apples, pears, peaches, plums, and other northern fruits. They are thrifty and prosperous, and are an excellent class of people, of whom it is only necessary to say *that there are four churches and not one whisky shop in the two settlements.* The climate being near the sea is about 10 degrees cooler than that of Anaheim, rather too fresh for delicate invalids, but admirable for the cure of fever and ague. The elevation above the sea ranges from 40 to 80 feet.

Centralia lies 6 miles north-west of Anaheim, on the line of the railroad to Los Angeles. There are only about 13 families in the settlement at this time; but the town site is the center of the best six miles square in the valley, and it is the best place for a colony in Los Angeles county. No land has been sold in the town site, and will not be until it is sold to a colony, who will thus have the power to decide whether it is to be a temperance or a whisky colony. This tract has about 145 feet elevation above the sea, and just about the same climate as Anaheim. The soil, however, is far superior to that of the original Anaheim settlement. This land is free from frost, and has been proved to be admirably adapted to the culture of citrus and northern fruits, vines, etc.; and there is no better land in the world for general farming crops.

Artesia and Norwalk are located six miles west of Centralia; the latter on the railroad, and the former about 3 miles south; the settlements join, and like Westminster and Garden Grove, it is practically one settlement with two centers. This is a fine farming country, and a settlement of thrifty people. All of these settlements have plenty of vacant land, just as good as that which is occupied, for new-comers to select from. And all of them are included in the district where flowing artesian wells are found.

In Westminster every farmer has from one to three flowing wells. In Centralia all have them who want them. In Artesia and Norwalk they have both flowing wells and ditches from San Gabriel river for irrigation. One crop can always be raised without irrigation; but as two and even three crops are raised in one season, the ground requires irrigation for the second and third crop. The irrigator in this climate never stops farming; as soon as one crop is harvested the ground is prepared for another. If the ground is not utilized for a paying crop, weeds will grow; the land requires no rest. Such land in such a climate is certainly worth more than land in the interior of the continent, where the cost of transportation is so great that it takes half or more of the produce of an acre to pay for the transportation of the remainder to market. Purchasers can select the best of these lands in small tracts at prices ranging from $25 to $40 per acre, terms cash; or if time is desired, one fourth cash, and the balance in three equal annual payments, with ten per cent. interest. If large tracts are taken, prices would be reduced correspondingly. Your readers must remember that these are lands that when properly farmed yield from 60 to 150 bushels of corn, 40 to 100 bushels of barley, 30 to 80 bushels of wheat, 10 to 15 tons of alfalfa hay to the acre; and moreover, he must remember that with irrigation these crops are certain. The man who has water is independent of the seasons. Our vineyards yield from 500 to 1,000 gallons of wine to the acre. We have thousands of acres of natural green pastures that will sustain a cow to the acre by the year on green feed. We have the dairy country in the United States, and a soil better and more lasting than the best Ohio river bottoms. Come and see if it is not so.

WM. R. OLDEN.

Apiary Department.

CONDUCTED BY S. LEVERING.

There are several important points to be observed by the novice in bee-keeping:

1. Do not rush unadvisedly into the business like a horse into battle, and paw your way through blindly.

2. Let your motto be, "That which is worth doing is worth doing well."

3. Acquaint yourself with the nature and habits of the bee, by reading some good work on bees; Langstroth, Cook, or other reliable bee literature.

4. Get two or three colonies of Italian bees, and manipulate them in accordance with the given rules.

5. When you have learned to handle these successfully, you make take charge of more.

6. Always bear in mind that the key of success is in *strong colonies.*

SWARMING.

In writing upon this subject we address ourselves especially to the inexperienced bee-keeper.

Owing to the weak condition of bees, natural swarming will not commence this season as early as usual. Artificial swarming is now general among nearly all practical apiarists. It is urged, by some, however, that bees know best when to swarm, and that natural swarms are stronger, and consequently more reliable.

But when permitted to swarm *ad libitum*, bees require constant watching, else swarms may abscond, and leave the apiarist to sigh over his loss as they go glimmering.

Artificial swarming, when properly done, is as reliable and much safer than natural swarming, as it prevents the loss of swarms by absconding. We have not adopted the method usually practiced in this country, of making two colonies out of one. This leaves both colonies quite weak; and if any calamity should befall the forage, and supplies be cut short, the bees will be found too weak to be self-sustaining.

We would advise the making of one swarm from five; or if you have not that many, from what you have. If five, take two or three frames containing brood and eggs, with the bees adhering, from each of four hives, and place them in your new hive, being careful that you do not get the queens, or more than one. Then remove the fifth hive (which should be the strong one) fifteen or twenty feet away. Do this about the middle of the day, when the bees are at work, and place the new colony where it stood. When the bees return they will be somewhat disconcerted by the change of domicile, but after flying around, and in and out a few times, they accept the situation and go to work. In making the swarm, from two to four of the combs should contain honey, and be placed at each end of the hive with those that contain brood in the middle. If a queen is not given them they will rear one from the eggs. Now you have a colony that for any emergency is as good as an old one, less the queen. As fast as the empty frames that replaced the full ones taken out are filled, swarming may be repeated.

THE BEE MEETING.

We have received letters from apiarists at a distance, requesting a report of the proceedings of the meeting on February 21. In reply we will say that a copious rain prevented any attendance, and doubtless did the honey interests more good than the meeting could possibly have done. We are glad to see so much interest taken in matters pertaining to the improvement among the fraternity. Another meeting was held the third Saturday in March, too late for a report of proceedings to appear in this issue, but will give it next month.

When bees are seen running about the entrance of the hive in the evening, in a disturbed condition, you can mark that hive as queenless, and give it your immediate attention.

ALKALI LANDS.

EDITOR SEMI-TROPIC CALIFORNIA: I said in a former letter in one of our city papers, that our lands here would never wear out; and in support of that assertion, stated the fact that there are lands here which have been cultivated for nearly one hundred years, and have never been fertilized, that produce as good crops now as fresh land.

Since writing that article, I have been frequently asked to give some reason for the non-exhaustion of our soil by years of continual cultivation, as other soils in other places. If any one can tell me why other lands do wear out, I might be able to say satisfactorily why these do not.

I have thought sometimes that the Great Architect left California out of the list when He cursed the earth for man's sins, and told him that it should henceforth not yield unto him its full strength; and that He left in California soil the fertilizing property which He extracted from the rest of the earth.

This fertilizing property is thought, by some very eminent chemists, to be the alkali that is found in all our land, both hill and valley.

Alkali land is considered worthless, and is, if alkali is in excess of a certain amount; but we have no land of this kind, except it be in a basin, or so nearly level that the water can not run off. In this case, the water evaporates and leaves the alkali. If these same lands were drained, they would produce as well as, or better than, any other lands we have.

Besides this alkaline property in our soil, there are large quantities of gypsum distributed all through the hills, and this is continually undergoing decomposition and being distributed over the valleys, and gypsum is one of the best fertilizers known to man, as it contains 79 per cent. of sulphite of lime.

It is well known by farmers in Eastern States, where soils are said to become exhausted by cultivation, that on any of the clay hill lands, where the soil is washed away, if a small brush-heap or a few cornstalks are burned, a good crop is insured for the next year; while if a large log heap is burned, any crop in that place will be a total failure. This is one of the strongest evidences I can present to farmers in support of the assertion that alkali, to a certain amount, is a fertilizer; in excess of that amount, is preventive of growth.

As further proof that alkali and gypsum sustain the fertility of the soil, I can show places where the top of the ground has been cut off for twenty feet; this surface, exposed to sun and air for two or three years, will produce as well as any other land. I can also show piles of gravel and sand taken from a well fifty feet deep, which will produce anything that grows here.

J. W. PORTS.

HOW SHALL WE IRRIGATE?

IN the irrigation of an orange grove, vineyard, orchard, or plantation of small fruit, the question of first importance is: Can water be had for irrigation? If settled in the affirmative, the next question is: How shall we irrigate our land? Shall we follow the old system of periodically flooding the entire surface in midsummer, when all the climatic conditions rebel against the process, or shall we do just what nature does when we have a *good* year—apply the water abundantly in winter and store it *in the soil* to come to the surface by capillary attraction. But some good soils will not retain enough of the moisture deposited during the winter to supply what is needed during the long dry summer. If we flood such soils, we know that the moisture below being exhausted, the roots seek it near the surface where, in a few days, they will be in *dry* ground again, the tree withers, and we must flood *again;* so we have a succession of feasts and famines.

Now, if we can find some way of conveying moisture to the soil below the surface, never allowing any water on the surface except the rain, keeping the surface dry all summer long, we know the temperature of the soil will be more even; that it will not bake, but remain loose, so the roots may go deep in search of plant food; that much less water will be required, as none, or very little, will be lost by evaporation; that the labor of cultivation will be lessened; that, the soil being dry to the depth of three or four inches, the weeds will not grow.

This is sub-irrigation, and is worthy our thoughtful consideration. Evidently, we have to adopt some better system of irrigation than the old one, which has nearly ruined some of our older orchards; although a part of the damage done may be because of the *abuse of surface irrigation, too much* water having been used. Still the question comes up: Is it the proper way to irrigate?

In some portions of Southern California we have not water enough for ourselves and the thousands who are sure to come to enjoy our genial climate, and will want to help us plant these thousands of now waste acres.

Some of our very best lands lay far

above any water supply adequate for surface application, but by the adoption of a system which would require but a small part of the water ordinarily used, could be supplied with that smaller quantity and brought under cultivation.

If you want to see a fine stock of Farm and Spring Wagons, call on Rees & Wirsching, at 35 and 37 Los Angeles St. (Page & Gravel's old stand). They also make a specialty of Carriage Painting.

DRUGS AND CHEMICALS.

The largest stock of Drugs, Chemicals, Patent Medicines, Perfumeries, Toilet articles in Southern California, at the very lowest possible prices.

Agents for Humphrey's Homeopathic Specifics and Holman's Liver Pad.

PRESCRIPTIONS A SPECIALTY.

Put up at all hours of the day and night.

HEINZEMAN & ELLIS,
72 Main Street,
LOS ANGELES, CAL.

"A PENNY SAVED IS EQUAL TO TWO EARNED."

Buy Your

PICTURES and FRAMES
—OF—
J. A. VALDER,
38 Spring St, Strelitz Block,

At Wholesale Prices, and save money. Picture frames made to order. Box frames made for Moss, Shell, Worsted and Wax-work.

R. M. WIDNEY,
Attorney at Law.
LOS ANGELES,
California.

A. BRUNSON. G. WILEY WELLS.

BRUNSON & WELLS,
Attorneys and Counsellors at Law.
Nos. 11, 12, 14, 16 and 17, Baker Block.

Will practice in the Supreme Court of this state, and of the United States, and attend to all business before the Departments at Washington, D. C.

V. PONET. B. F. ORR.

PONET & ORR
GENERAL FURNISHING UNDERTAKERS
No. 66 Main St.

Agents for Raymon's Metallic Burial Cases and Caskets of New York. Undertaker's goods wholesale and retail. Particular attention given to embalming bodies for shipping East.

E. GERMAIN,
WHOLESALE COMMISSION MERCHANT,
For the sale and purchase of all kinds of
Produce and Merchandise.

OFFICE AND WAREHOUSE:
28 Main Street, Los Angeles, Cal.

Consignments of every description of Country Produce solicited. Advances made on approved shipments. I execute orders at lowest prices for Green and Dried Fruits, Dairy Produce, Groceries, Provisions, Wines and Brandies, Honey, and everything produced in this market.

Sole Agent for Star Dairy Cheese.

H. SLOTTERBECK & CO.,
Importers of, and Dealers in
GUNS, RIFLES, PISTOLS, CUTLERY
And Sporting Goods of Every Description.
Repairing Carefully Done.
75 MAIN STREET,
P. O. Box, 1128. LOS ANGELES, CAL.

LOS ANGELES
Business College.
PRACTICAL BUSINESS TRAINING SCHOOL FOR YOUNG MEN AND WOMEN.
ROOMS 1 and 4,
ODD FELLOWS' BUILDING,
Over Post-office.

Sessions day and evening. Students may enter any day in the month. For particulars, apply to

C. W. LA PETRA,
Business Manager.

The Cheapest Route to Southern California

Is by the Steamers of the

Pacific Coast Steamship Co.

—FROM—

SAN FRANCISCO.

Tourists and others for San Luis Obispo, Santa Barbara, Los Angeles, San Diego and all places in Southern California should take tickets as above.

The opportunity of visiting San Francisco the metropolis of the Pacific Slope, of passing through the "Golden Gate," and of enjoying a short and invigorating voyage on the Grand Pacific Ocean should be availed of, especially as the expense by this route is less than by any other.

GOODALL, PERKINS & CO.,
GENERAL AGENTS,
San Francisco.

Ticket Office,
No, 214 Montgomery St.

COSMOPOLITAN HOTEL.
The only
Reliable First Class Hotel
In Los Angeles.
The Finest Hotel in Southern California.
HAMMEL & DENKER, Proprs.

THIS NEW AND ELEGANT HOTEL IS SITUATED in the centre of the city of Los Angeles, and contains nearly a hundred spacious and airy rooms, newly furnished in the most comfortable style. Rooms in suits for families and parties on every floor, with hot and cold baths.

The Table

Will always be furnished with the best supplies that can be procured in the market.

A Free Coach

Is always on hand to carry guests to the house.

No pains will be spared to make guests comfortable in every way.

A large reading room open night and day.

HENRY HAMMEL.
A. H. DENKER.

THOROUGHBRED POULTRY.

LARGEST STOCK OF
IMPORTED FOWL
ON THE PACIFIC COAST.

Bone Meal and Poultry Supplies
Always on Hand.

General Pacific Coast Agent for the AMERICAN POULTRY FOOD. It will make your hens lay, and prevent disease. For raising young chicks it is almost indispensable.

My yards contain choice strains of the leading varieties, including Langshans, Plymouth Rocks, Pekin Ducks, etc.

Eggs for hatching packed to go any distance. Prices always reasonable. Safe arrival of fowls and eggs guaranteed.

Importer and breeder of the Improved Short Nose, Dish-Faced BERKSHIRES. Also, Magic Poland-China Pigs.

Letters of inquiry, inclosing stamp, cheerfully answered. Address

WILLIAM NILES,
Importer and Breeder,
P. O. Box 250. LOS ANGELES, CAL.

LANDS FOR SALE
BY
A. F. WHITE & CO.,
REAL ESTATE AGENTS,
No. 1½ SPRING ST., Los Angeles, Cal.

We respectfully ask the readers of this Journal to note the following rare bargains in Real Estate. We have a large amount upon our books for sale, and all special inquiries addressed to us will be promptly answered.

160 ACRES of highly improved farm land, five miles from the Court House. Large two-story dwelling house, and tenant house which can be used for dairy purposes. Barns, sheds, and other out-buildings. Two good wells, pump, and wind-mill. Large reservoir. Place all fenced with board fence. Plenty of fruit for family use. This is a fine dairy farm. Price, $9000.

150 ACRES at Pasadena, all tillable. Good wheat or barley land; no finer in the country for grapes or olives, neither of which require irrigation. Excellently located for raisin culture, it having a beautiful sunny slope. No improvements. Price, $15 per acre.

30 ACRES on Washington street. Beautiful vineyard or fruit land. Elegant view of the valley. Splendid place for a business man to build a home. Very choice bargain. Price, $1100.

320 ACRES farm land in the San Jacinto Valley, 12 miles from R. R. Station, in rapidly improving country. Well adapted to fruit and vines as well as grain. Water in great abundance 14 to 18 feet from surface; no better farm land in the state. Price, $3200.

SUB-IRRIGATION.

PREFERABLY the main pipe is laid through the center of tract, if larger than five acres, so that the distributing pipes (or laterals) will be nearly the same length.

It is best to have but little pressure (2 to 5 feet), as the water may be forced to the surface, but this is easily managed, no matter how high the fountain may be above the tract to be irrigated.

The size of distributing pipe depends somewhat on the length of the row of trees; but it is not desirable to have a large pipe as it contains too much water to be drained off through the lowest outlets, giving *too much* water to the lower trees. Ordinarily we use a pipe of two-inch caliber.

Frequently (owing to the conformation of the ground) one line of pipe will *fill* before *any* water reaches the other line or lines in a section (a *section* is any number of rows supplied by one hydrant); of course it is carrying water to the trees along that line, not only while the other pipes are to their respective rows, but *after* they have ceased to do so. In such case it is only

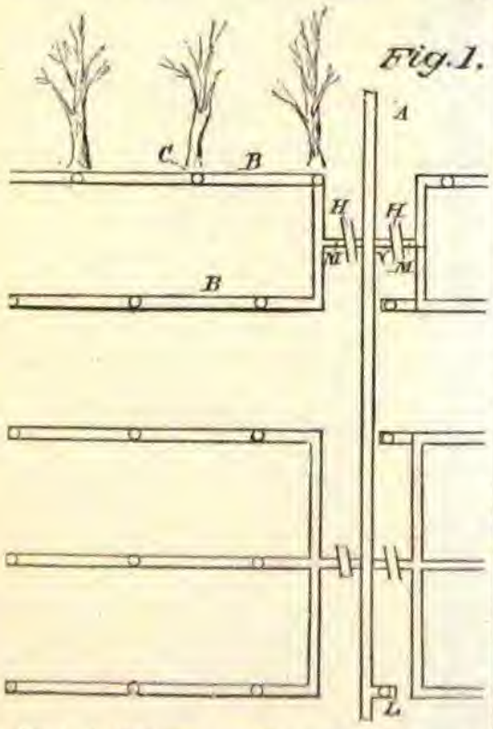


FIG. 1. *A*—Main pipe, supplying water from Reservoir. *B*—Distributing pipes, laid about a foot below the surface of the ground, and about a foot from each row of trees, or, these pipes may be laid midway between the rows. *C*—Earth guard, a piece of pipe, as shown in Figs. 3 and 4. *H*—Hydrant (or gate), as shown in Fig. 2. *L*—Spur from main. *M. N*—Connections between A and B through H, as in Fig. 2.

necessary to partly close the holes through the plugs in the lowest line, so that they will deliver about the same quantity of water as those in the higher lines in the same time.

The hole through P should not be large enough to let the water escape faster than the soil will absorb it; otherwise it will rise in C to the surface.

If the hole in P is made too large, insert a wooden wedge to check the flow.

As P stands about two inches above B, and is protected by C against being covered with earth, roots *can not* get into the

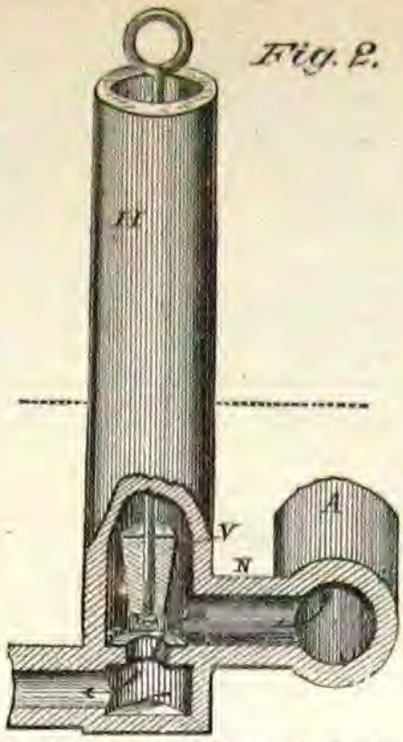


FIG. 2. Shows position of hydrant as set. The plug-valve V being closed, water rises in H to level of water in Reservoir; upon raising V, water takes direction of arrows, passing into B.

pipe, neither can mud get in while the pipes are draining.

If through carelessness muddy water is let into the pipe and sediment collects, one or more of the lower plugs can be taken out, and the water passed rapidly through the pipes will be cleaned; though the water, being in motion, tends at *all times* to keep the pipe clear.

All the work may be made of concrete, except the valve V, and is indestructible, growing harder by age.

The pipe is made continuously with a recently patented machine which *makes and lays* it in the trench, following all the undulations and curves.

Three men will easily lay 1200 feet of two-inch pipe in ten hours.

This system and machines used are fully protected by U. S. patents.

Our pipe machine makes the cheapest and best tile drain known. Nothing can compare with it in cheapness and durability.

We hold that in a region where no rain falls during the long, hot summer, the only proper way to irrigate orchards, vineyards, etc., is to apply water *below the surface of the ground*, keeping the surface *dry*.

The Asbestine System consists in conducting the water in concrete pipes laid below reach of the plow, along each row of trees. At each tree plugs are set in the upper side of pipe. Each plug has through it a small hole, through which *and nowhere else*, the water escapes, falling on the *outside* of pipe and is taken into the soil by capillary attraction.

It saves from three fourths to nine tenths the water used in surface irrigation.

It is under perfect control, and can be applied wherever irrigation is needed.

There is no need of summer cultivation, either before or after irrigating.

The surface of the ground is always dry (in summer), hence, exempt from the unavoidable *chill* of surface irrigation.

The soil is never excessively wet *and can not bake*, but remains moist, loose, and at a nearly uniform temperature, promoting a long-continued summer's growth.

Anything which the soil lacks as plant-food (manure, lime, etc.) can be easily, directly, and economically applied in liquid form; the pest of the vineyard—phylloxera—can thus be easily reached.

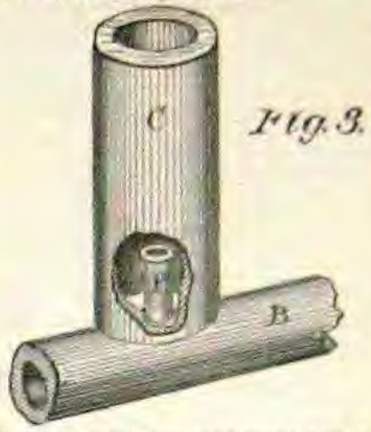


FIG. 3. Shows position of Distributing Pipe B, Earth Guard C, 4-inch caliber, set loosely on B, extending 6 inches above surface of ground, to prevent earth from falling on plug P and plug P. Water passes along B, flows up through the hole (O, Fig. 4) in P, and falls down on B outside of P, *inside* of C, and is taken into the soil by capillary attraction.

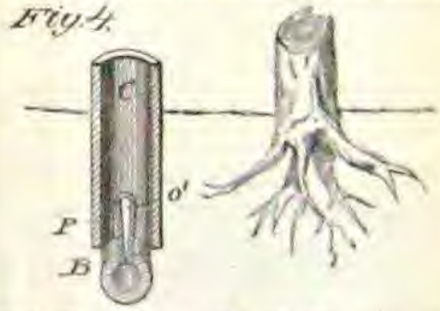


FIG. 4. Shows relative position of B, C, P, and the tree—the dotted line representing surface of ground. The plug P is a tapering piece of wood, stone or metal, set in the pipe B, having through it a tapering hole for passage of water. The reason for making it so is, that anything which can get into the hole with the water can readily pass through, and will not, by accumulation, close it.

No grading is necessary, as the system works perfectly on hill sides and undulating land.

Roots *can not* get into the pipe, neither can it *suck mud*—difficulties never overcome by any other system of sub-irrigation.

ASBESTINE SUB-IRRIGATION CO.,
Los Angeles, Cal.

LARGE ALFALFA.—Very often we have spoken of the rapid growth of alfalfa in this section, and now we have a specimen in our office that we challenge any country to beat. It is one year's growth, and measures nearly ten feet in length. It was grown on the farm of Mr. John Devenny, in Gospel swamp, and without irrigation. We have known of cases where alfalfa has been cut for hay as many as seven times during one year, but never before have we seen a bunch that was allowed to grow for twelve months without cutting. This is another excellent test of the productiveness of the Gospel swamp country.—*Santa Ana Times.*

THE CHEAPEST

—AND—

BEST

GROCERIES

—AT—

GEO. D. ROWANS,

Baker Block,

Los Angeles, Cal.

LOS ANGELES ACADEMY.

THE courses of study embrace the Regular Academic Course; Commercial and Business Course; Normal School Course; Latin, French, German and Spanish Languages; Vocal and Instrumental Music, Painting and Drawing.

O. S. FRAMBES, Principal.
S. E. FRAMBES, Preceptress.

Location: Main Street, bet. Third and Fourth.

JOHN WAUGAMAN'S
GOLD DRY WASHER.

Factory and Exhibition Rooms, Requena St.

THE only successful Dry Washer ever invented. Capacity, twenty tons in ten hours, with a saving of *ninety per cent.* of all the gold in the gravel that is milled. The machine weighs 160 pounds, and will be made to order promptly. Placer miners will do well to call and examine this wonderful machine. tf

CONGRESS HALL
Oyster Saloon and Restaurant,

Corner of Main and Requena Streets,

OPPOSITE THE U. S. HOTEL.

THIS popular resort has been established since 1872, and has at all times been considered one of the most complete establishments on the coast where ladies and gentlemen can dine and receive the best of attention. Eastern, California and Puget Sound Oysters are served in all styles, in the most faultless manner. Oysters sold to dealers, wholesale, at San Francisco prices.

JOE BAYER, Proprietor.

L. LICHTENBERGER,

Manufacturer of all kinds of

WAGONS, CARRIAGES, ETC.,

Main Street,
Los Angeles, Cal.

The best kind of work guaranteed.

DILLON & KENEALY,

DEALERS IN

Staple and Fancy Dry Goods.

All the latest novelties and new styles received weekly.

We invite you to call and inspect our goods and prices.

MAIN STREET,
Los Angeles, Cal.

PURE BRED BROWN LEGHORNS.

Eggs for hatching carefully packed to go any distance.

$1.50 for 13; $2.50 for 26.

LIGHT BRAHMAS AND BUFF COCHINS.

A limited number of Eggs, from *Extra Choice Fowls*, at reasonable rates. All eggs warranted fresh, fertile and true to name.

CHAS. P. JILLSON,
Corner Fourth and Mill Sts. (near Woolen Mill.)

Orders may be left with me at DOTTER & BRADLEY'S, 82 Main Street.

JOHN C. OLMSTED,

Dealer in

BOOKS, STATIONERY,

AND FANCY GOODS,

No. 36 Main Street, (Op. Cosmopolitan Hotel.)

LOS ANGELES, CAL.

BRANCH STORE AT SANTA MONICA.

WALTER S. MAXWELL,

COMMISSION MERCHANT,

AND DEALER IN

Wool, Grain and Live Stock,

36 Spring Street,
Los Angeles, Cal.

THE PLUMMER
Patent Fruit and Vegetable Drier.

Reasons why it is the Best.

1. Most durable.
2. Simple to operate.
3. Most economical in fuel.
4. Fruits and vegetables dried by it command at highest market price.
5. Flavor, color and condition of fruit unrivaled.
6. More fruit can be dried by the Plummer in proportion to its cost than by any other.

An evidence of the superiority of the Plummer is seen in the fact that it received the highest award and medal at the Paris Exposition, 1878, Centennial medal, Philadelphia, 1876; three gold medals at the State Agricultural Society, Oregon, (one each year since patented) and silver medal for dried potatoes. And silver medal awarded by the Southern California Horticultural Society, 1879. Also medals and diplomas of highest award at numerous other places exhibited.

Over 1000 of these Driers already in operation on the Pacific slope since patented in Oregon three years ago.

For price, descriptive catalogue of Family and Factory Drier, address,

OGILVIE & EAMS,
Box 128. Los Angeles, Cal.

Cash Dry Goods House.

Your Patronage Solicited.

Good Goods.
Uniformly Low Prices.
Call and Examine.

—Also—

Men's Furnishing Goods.

Special Inducements in

Linen Bosom Shirts and Underwear.

Always glad to show goods.
Respectfully,

B. F. COULTER,
No. 32 Baker Block, Los Angeles, Cal.

Harper, Moore & Co.,

110 Main Street, Los Angeles.

Call on us for

Hardware, Tinware, Stoves,
Agricultural Implements,
And
Averill Mixed Paints.

Plumbing, Tinning and Gas Fitting done on short Notice.

Well and Water pipe always on hand.

Give us a call and we will save you money.
Respectfully, HARPER, MOORE & CO.

E. NAUD. O. G. WEYSE.

E. NAUD & CO.

WINE GROWERS

—AND—

Wholesale Liquor Dealers.

California Grape Brandy in Bond.

Sole agents for the Whiskies of G. H. Chess & Co., Louisville, Ky.

G. W. MORGAN,
REAL ESTATE AGENT.

Room H (Up Stairs),

POST-OFFICE BLOCK,
LOS ANGELES CITY.

The oldest Real Estate Office in the city. Furnish house and carriage and show property.

Markets.

Retail Groceries, Etc.

Butter, Cali.			
Choice, lb...	20	@	30
Cheese.....	15	@	20
Eastern.....	20	@	25
Lard, Cal.....	8	@	10
Eastern.....	15	@	20
Flour, ex. fam			
bbl 6	20	@	7 50
CapitolMills,			
⅌ cwt.....3	20	@	
Pion'r ⅌ cwt2	60	@	2 60
Superfine, do		@	2 70
Graham 50-lb			
sack.....		@	1 45
Buckwheat..		@	45
OatmealCal,10-			
lb sacks...		@	55
Eastern do..		@	75
Corn Meal, lb..	1c	@	1½c
Sugar,w crshd	12	@	
Light Brown	9	@	10
Coffee, Green..	20	@	30
Tea, Fine Bl'k.	50	@	1 00
Finest Jap'n.	60	@	80
Candles,Admts	15	@	25
Soap, Cal.....	3	@	10
Rice.....	9	@	
Yeast Pwdr,doz1	50	@	2 00
Can'd Oysters,			
doz.....1	75	@	3 50
Syrup, SF Gd n	80	@	1 00
Dr'd Appl's, lb		@	15
Ger Prunes ...	12½	@	
Figs, Cal ...		@	10
Peaches.....	10	@	20
Oils, Kerosene	25	@	30
Honey	15	@	20
Do.	10	@	12
Extracted...	8	@	12½
Bacon, Cal...	8	@	10
Hams, do.....	9	@	12½
Eastern ...	15	@	17
Potatoes, ctl...	90	@	....
Onions, ctl....		@	4 00
Beans.....1	50	@	2 50
Butter.....1	40	@	1 50
Lima.....5	00	@	6 00
Fresh Beef....	5½	@	6½
Round steak	00	@	8½
Sirloin.....	10	@	12
Porterhouse.	12½	@	15
Chickens.....	3½	@	4½

A Valuable Industry. — **The Los Angeles** Woolen Mills, located on Pearl street in this city, are at present doing a fair business and deserves the patronate of all of our merchants. Through the curtesy of the proprietors we recently inspected the building, the machinery and the goods manufactured, and we feel safe in saying that of better quality of goods of the same style is not imported into Los Angeles. The mills are turning out daily a fine stock of blankets, flannels, cashmeres and tweeds, and we are pleased to add are receiving large orders from the principal towns of Arizona. All industries of this kind are of incalculable value to our city and county, and should be hastily enlarged by our municipal authorities and good citizens generally.

The old adage, "the best is always the cheapest," will apply to no article with greater force than to Seeds. Nothing is quite so worthless as poor Seeds. D. M. FERRY & Co., of Detroit, Mich., seem to be one of the very few firms engaged in the Seed business who have fully realized the importance of putting up and selling only the freshest and best of all varieties of Seeds; and as a legitimate result their brand of Seeds has become exceedingly popular all over the land. We take pleasure in referring to their advertisement in our columns, and would advise all our readers who will be likely to require Seeds, to send and obtain their beautiful catalogue giving prices, instructions for planting, etc.

Fruit and Farming Land

The undersigned offers for sale, on reasonable terms and in lots to suit, several hundred acres of

FRUIT AND FARMING LAND

IN LOS ANGELES COUNTY.

The above land is well supplied with water, and will be sold with water right and water stock.
Also, a few CHOICE LOTS in the city of Los Angeles, improved and unimproved.
Call on, or address the owner,

H. S. Orme, M.D.,
Los Angeles, Cal.

R. G. CUNNINGHAM,

DENTIST,

74 Main Street,

Lanfranco's Building. Los Angeles, Cal.

S. C. HUBBELL,

ATTORNEY AT LAW,

Rooms Nos. 3 & 4, Ducommun's Block,

Cor. Main and Commercial Streets,

LOS ANGELES, CALIFORNIA.

GIVEN AWAY

New Scarlet Striped Geranium

NEW LIFE!

By mail, paid. To any one sending us $1.25 for 5 plants of this Geranium, we will add a plant gratis. A single plant mailed free for 40c. ☞Our Catalogue containing Colored Plate of above Geranium free. We also send by mail, prepaid, 13 Ever-Blooming Roses, flowering size, labeled, for $1.25.
INNISFALLEN GREENHOUSES, Springfield, O.

PETER HENDERSON & CO

SELL EVERYTHING FOR THE GARDEN

SEEDS, PLANTS, SMALL FRUITS, &c.

CATALOGUE FREE TO ALL WHO APPLY BY LETTER.

Peter Henderson & Co.
35 CORTLANDT ST. NEW YORK.

THE DEAF HEAR

THROUGH THE TEETH!

PERFECTLY, all Ordinary Conversation, Lectures, Concerts, etc., by NEW Channels, in the Series of Hearing, by a wonderful New Scientific Invention, THE DENTAPHONE. For testimonials (gold) Tests on the Deafness of the Deaf and Dumb—See New York Herald, Sept. 29, Christian Standard, Sept. 27, etc. It displaces all Ear-trumpets. Size of an ordinary Watch. Send for our FREE pamphlet. Address
AMERICAN DENTAPHONE CO., 287 Vine St., Cincinnati, Ohio

SAWING THE LOG.

THE GREAT SUCCESS OF THE WONDERFUL IMPROVED Labor Saving RIDING SAW MACHINE is fully demonstrated by the number in use and the present demand for them. It saves Logs of any size. One man can saw more logs of cord wood in one day and easier than two men can the old way. It will saw a two foot log in three minutes. Every Farmer needs one. Township agents wanted. Send for Illustrated Circular and Terms.
Address W. W. BONTWICK & CO., 178 Elm St., Cincinnati, O.

WALTER S. MOORE,

FIRE INSURANCE.

Policies written here on

BUILDINGS OF ALL KINDS, GRAIN AND HAY.

Special rates on growing crops.

36 SPRING STREET.

Central Block, Los Angeles, Cal.

SPLENDID FLOWERS

Over 1200 distinct varieties. All strong Plants, each labeled, delivered safely by mail. The largest assortment. Low prices. In business for 26 years. Illustrative catalogue. Stock comprises all desirable varieties. Only rooted plants sent. Our new Illustrated Hand-Book, sent free, contains name and description of each plant, with instructions for successful cultivation. Do not purchase Plants elsewhere before sending for our new

HAND-BOOK Every lover of flowers should have it. Every buyer of choice plants should have it. Every one sending new and choice plants should send for our Hand-Book.
HOOPES, BROTHER & THOMAS,
CHERRY HILL NURSERIES, West Chester, Pa.

Will be mailed free to all applicants, and to customers without ordering it. It contains five colored plates, one engraving, about 200 pages, and full descriptions, prices and directions for planting 1200 varieties of Vegetable and Flower Seeds, Plants, Roses, etc. Invaluable to all. Send for it. Address
D. M. FERRY & CO., Detroit, Mich.

NOEL & FELT,

DEALERS IN

Imported and Domestic

LIQUORS AND CIGARS,

114 Main Street,
Los Angeles.

☞ Agents for Noble Whiskey.

FOR SALE.

20 ACRES in Arlington Tract, Riverside, San Bernardino Co., Cal. Four-room Dwelling, 250 orange and 30 deciduous trees. Price, $1800.
GEO. M. FRINK,
Riverside, Cal.

RIVERSIDE HOTEL

For Sale!

Furnished; doing a good business; 2½ acres; 125 orange trees, grapes and plenty of fruit. Terms easy. Satisfactory reasons. Investigation solicited. Address
WM CRAIG,
Riverside, Cal.

R. J. TRUMBULL. CHAS. W. BEEBE.

R. J. TRUMBULL & CO.,

Wholesale and Retail Dealers in

Seeds, Trees, Bulbs,

PLANTS,

FANCY POTTERY, ANTIQUE WARE, RUSTIC BASKETS, GARDEN TRELLISES, GARDEN HARDWARE, LAWN MOWERS, ETC., ETC.,

Nos. 419 and 421 Sansome Street,
SAN FRANCISCO.

Catalogues on application.

RIVERSIDE LANDS!

The Riverside Land and Irrigating Company, of San Bernardino County, offer

15,000 ACRES!

Of the most desirable land in Southern California for Semi-Tropical

FRUIT GROWING

AND

Beautiful and Healthful Homes.

These lands are located in the Santa Ana Valley, San Bernardino County, 50 miles southeast of Los Angeles, and 7 miles south of Colton, a station of the Southern Pacific Railroad.

Twenty-eight miles of irrigating canals are now completed, and there is abundant water in the dryest seasons to irrigate all the lands offered by the Company. About 1,000 inhabitants are now in the Colony—enterprising and intelligent people. We have good schools, four church organizations, daily mail, telegraph line, newspaper, etc. Lands are offered at moderate prices and on liberal terms, and no lands are sold but to actual settlers. I invite all seeking homes in this portion of the State to call and see us before purchasing elsewhere. Every facility will be afforded for the examining of the lands offered.

S. C. EVANS, President R. L. & I. Co.

LAKE VINEYARD
LAND AND WATER ASSOCIATION

This Association is now offering for sale on easy terms some of the finest lands in California. They are situated about 1000 feet above the sea, in the rich and beautiful valley of San Gabriel, protected on the north by the Sierra Madre Mountains, while on the west a range of hills and mountains tempers the chill of the sea breeze as it passes over them for forty miles before reaching this locality. This combination of advantages makes it a delightful residence for invalids, while the lands produce all the grains and fruits of the temperate zone, and many of the products of the tropics. The land is supplied from large reservoirs fed by mountain springs, and carried in pipes along all the avenues of the tract which is divided into ten-acre lots, with water rights for every lot. This property is but seven miles from Los Angeles, and near the line of the Southern Pacific Railroad. For prices and full details, address

F. W. WOOD,
Secretary L. V. L. & W. A.

WM. H. PERRY. W. W. WOODWORTH. S. H. MOTT.

PERRY, WOODWORTH & CO.,

STEAM

Sawing, Planing & Molding Mills,

At their Lumber Yards,

76 Commercial St., Los Angeles Cal.

Dealers in

Lumber of all kinds, Plaster, Hair, etc.

Also manufacturers of

Doors, Sash, Blinds, Moldings and cut and turned work of all descriptions.

Dotter & Bradley,

Dealers in

Furniture, Carpets,

Wall Paper, etc.

80, 82, 84 Main Street.

Los Angeles, Cal.

Largest Stock

And

Lowest Prices.

Phineas Banning,

Forwarding

—AND—

Commission Agent,

Wilmington, Los Angeles Co., Cal.

Vessels Towed,
Goods Lightered.

Lumber and Grain stored with accustomed promptness.

BANKING HOUSES.

LOS ANGELES
COUNTY BANK,

MAIN STREET.

LOS ANGELES, CAL.

Capital Stock (paid up) $300,000

J. S. SLAUSON ..... President
R. S. BAKER ..... Vice-President
J. M. ELLIOTT ..... Cashier

DIRECTORS.

J. S. SLAUSON, A. W. BOWMAN,
V. A. HOOVER, BURKET S. BAKER,
J. BURNS, GEO. W. PERSHING.

Receive Savings Bank Deposits.
Buy and sell exchange on San Francisco, New York, London, Paris, Berlin and Frankfort.
Buy exchange on all parts of the United States and Europe.
Receive money on open account and Certificate of deposit, and do a general Banking and Exchange business.

COMMERCIAL BANK

OF LOS ANGELES.

Authorized Capital $300,000

E. HOLLENBECK ..... President
E. F. SPENCE ..... Cashier

DIRECTORS.

A. H. WILSON, W. WOODWORTH,
S. H. MOTT, H. MAYER,
L. LOEWENSTEIN, O. S. WESTBERG,
E. F. SPENCE, J. E. HOLLENBECK.

This Bank is prepared to receive deposits on open account, issue Certificates of Deposit, and transact a general Banking Business.

Collections made and proceeds remitted at current rates of exchange.

FARMERS' & MERCHANTS' BANK

OF LOS ANGELES.

CAPITAL $500,000

ISAIAS W. HELLMAN ..... President
L. C. GOODWIN ..... Vice-President
JOHN MILNER ..... Secretary

BOARD OF DIRECTORS.

ISAIAS W. HELLMAN, JOHN S. GRIFFIN,
O. W. CHILES, C. E. THOM,
L. C. GOODWIN, A. GRAMMIS,
PHIL. GATZER, POM. ANDREWS,
JOSE MARIANO.

Exchange for sale on
NEW YORK, LONDON, DUBLIN, FRANKFORT, PARIS, BERLIN, AND HAMBURG.

Receive Deposits and Issue their Certificates.

Buy and sell
LEGAL TENDERS, GOVERNMENT, STATE, COUNTY AND CITY BONDS.
Will also pay the highest price for gold and silver bullion.

"ABEL STEARNS RANCHOS."

THE

Center of Los Angeles Valley,

Los Angeles Co., Cal.

Embracing Anaheim, Westminister, Artesia, Garden Grove, Etc.

80,000 Acres for Sale

WILL BE

Sold in Tracts to Suit,

AT

Very Low Prices, and on Easy Terms and Low Rate of Interest.

Hundreds of flowing Pipe Wells. Water near the Surface. Rivers on two sides; ever-flowing creek through the tract. Front on the ocean.

Transportation and passage by steamship or railroad.

S. P. Railroad through the Tract.

23 HOURS FROM SAN FRANCISCO.

Convenient to markets and competing lines of shipments for produce, etc., etc.

The unsold land for sale or lease in sections or fractions, by

Alfred Robinson,
120 Sutter Street,
San Francisco, Cal.

Or apply to

Wm. R. Olden,
Anaheim, Los Angeles, Cal.

Or concerning Westminister Colony, to REV. ROBERT STRONG, Westminister, Cal.

Terms, one-fifth cash, balance on interest at 10 per cent. Send for Circulars and Maps.

SPECIAL INDUCEMENT

TO SUBSCRIBE FOR THE

SEMI-TROPIC CALIFORNIA,

AN ILLUSTRATED MONTHLY

DEVOTED TO

Agriculture, Horticulture, and the Development of Southern California.

OFFICE, Nos. 1 58, BAKER BLOCK, LOS ANGELES Cal.

TELLS ALL ABOUT CALIFORNIA.

☞ *To increase our Eastern Circulation, we offer until June, the "Semi-Tropic California" for one year, together with our new pocket map of California and Nevada (size 20x24), accurate and correct to date, for ONE DOLLAR. Inclose currency, stamps or post-office order, giving name of Post-office, County and State.*

Address

CARTER & RICE,

Los Angeles, Cal.

To Eastern Subscribers Only.

MAY

SEMI-TROPIC CALIFORNIA AND SOUTHERN CALIFORNIA HORTICULTURIST.

LOS ANGELES, CAL.
CARTER & RICE,
PUBLISHERS

VOL. III. 1880. No. 5

J. G. JACKSON. W. G. KERCKHOFF. JAMES CUZNER.

JACKSON, KERCKHOFF & CUZNER,

Dealers in

Lumber, Windows,

Blinds, Doors,

Moldings, Laths, Pickets, Shingles,

Plaster Paris, Cement and Hair.

Cor. of Alameda and First Sts.

Los Angeles, Cal.

EVERYBODY

Knows or should know that

The Grange Store

—IS—

Noted for its Low Prices

—AND—

Choice Groceries.

Highest Prices Paid for all Kinds of Country Produce. Gilt Edge Butter a Specialty.

SEYMOUR & CO.

A. LUSK & CO.,

COMMISSION MERCHANTS,

Wholesale dealers in green, dried and canned fruits, and general farm products. Their long experience in the business, and high, honorable dealing, entitle them to the patronage of all shippers.

534 & 536 Clay St. 539 & 531 Merchant St.
SAN FRANCISCO, CAL.

DILLON & KENEALY,

Are receiving the Choicest Stock of

Spring and Summer Goods

Ever imported to Los Angeles.

DRESS GOODS,

In all the New Shades and Styles.

BROCADED AND STRIPED SILKS.

FANCY HOSIERY.

KID GLOVES, Plain, Laced and Embroidered.

Ladies' and Misses' Silk and Lisle Thread Gloves in Every Variety.

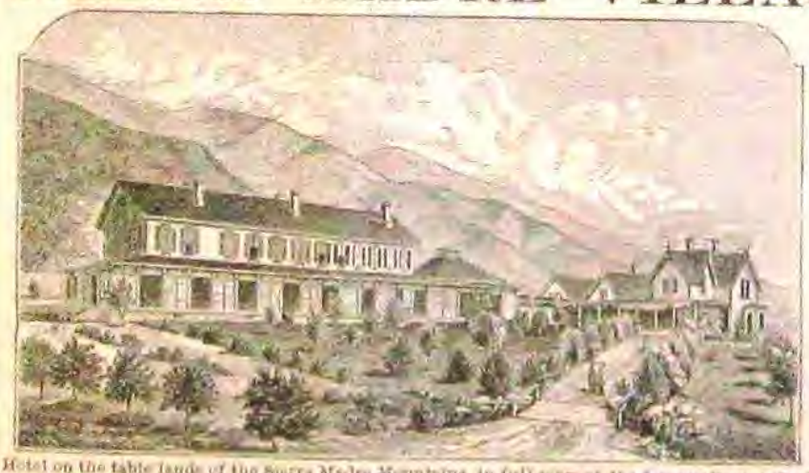
Ladies' and Children's Silk Mitts, Black and Colored.

DILLON & KENEALY,

86 Main Street,

Los Angeles, Cal.

SIERRA MADRE VILLA.



A Private Hotel on the table lands of the Sierra Madre Mountains, in full view of the famous Orange Orchards of the San Gabriel Valley in Southern California, for the accommodation of parties seeking a mild and healthful climate. It is four miles from the Mission San Gabriel Railroad and Telegraph Stations thirteen miles from Los Angeles. The buildings are entirely new, lighted by gas, and with all the comforts of an Eastern home. For further information

Address W. P. RHOADES, San Gabriel, Los Angeles Co.

REMEMBER

In buying your Groceries, Provisions, Crockery, etc., that there is but one store in Southern California where goods are bought and sold exclusively for cash, consequently the only place where you can get the same at any time, and under all circumstances, at the very lowest possible prices, and that is the

AMERICAN CASH STORE,

C. W. GIBSON, Prop.

No. 48 and 50 Spring St.

Tablets issued. Los Angeles.

LANDS!

FOR SALE—TO RENT—AND FOR DISPOSAL OTHERWISE,

In different portions of Los Angeles County and City.

Especially upwards of 2000 acres of land well adapted to the growth of vineyards, to be disposed of on shares, i. e., one portion to be cultivated, planted and kept in grape vines for three years, in consideration of conveyance of another portion. Of the lands last referred to a large body is on the Tujunga Ranch, and is irrigable from the Tujunga Creek during the winter and up to the middle of June. Some capital as well as labor is requisite for constructing ditches and clearing off the brush which grows on about two thirds of the land. Any company or colony seeking a location desirable as an investment, or as profitable, healthy and pleasant homes, should look at these. For particulars, apply to

HUGH GLASSELL,
At Office of Glassell, Smith & Smith,
TEMPLE BLOCK, LOS ANGELES CITY.

T. E. ROWAN,

REAL ESTATE AGENT

—AND—

COMMISSION AGENT.

Ranches, Orange Groves, Fruit Lands, Farms and Vineyards for Sale.

AGENT FOR

State Investment and Insurance Company,
Of San Francisco, Cal.

77 Downey Block,
Los Angeles, Cal

SEMI-TROPIC CALIFORNIA

DEVOTED TO AGRICULTURE, HORTICULTURE, AND THE DEVELOPMENT OF SOUTHERN CALIFORNIA.

VOL. III. LOS ANGELES, CAL., MAY, 1880. No. 5.

BRIGHT PROSPECTS.

Messrs. CARTER & RICE: The southern part of Los Angeles county has no just cause of complaint against the clerk of the weather this year, for although the past winter has been unusually cold, and vegetation is more backward than usual, no harm has been done by frost in *Anaheim*, *Centralia*, *Garden Grove*, *Orange* and *Santa Ana*. Citrus fruit trees are entirely untouched by frost, except in the case of a few lime trees, of which only a few tender twigs were nipped. As the winters of 1878 and 1879 and 1879 and 1880 are the coldest that have been experienced here for a number of years, our exemption must be owing to permanently acting causes, and can be calculated upon in the future. Although during the storms this winter snow fell all over the State, north and south, "*warm belts*" and everywhere, none fell in the valley of the Santa Ana river, which includes the above-named places, and if we may trust the memory of the oldest inhabitants none has fallen here for twenty years. Persons about to plant vines and fruit trees should take note of these facts, and select their lands where the risks from frost are reduced to a minimum.

Our other fruits promise large returns, the cold weather having kept them from blooming later than usual, so that the danger of damage from frost is now probably past. Our vineyard men some time since had made extensive preparations to smoke their plantations in case Jack Frost should make an assault upon them, but it is probable that now the danger is over, and their supplies of coal tar and asphaltum will be kept for another season. As grapes will probably sell for $25 to $30 per ton this year, vineyards have become valuable property, and there is, in my opinion, no enterprise more certain to pay in the future than the planting of vineyards. Wine and brandy are the only products of agriculture *that increase in value by keeping; all the others decrease, and in time become worthless.*

Our Anaheim Odessa wheat is growing splendidly; in most of the fields it has spread out and fully covered the ground, and is now beginning to look upwards for a chance to extend itself. No matter what other wheat will do in the county this year, this wheat is certain to yield very largely. Its good qualities will be thoroughly tested and its reputation firmly established. If parties in search of wheat lands will visit this section in the month of May, I think we will be able to satisfy them as to the wheat-growing capacity of the Santa Ana valley. The only danger is that the growth will be too great; but if it don't lodge, and it has the reputation of being a strong straw and wheat, I think some fields will yield 40 centals per acre; it yielded as much as 30 centals last year with 4½ inches of rain, and it is not unreasonable to expect a 25 per cent. better return with over 12 inches of rain, when it has been sown on the very best lands of the valley, which have yielded 40 centals of barley to the acre.

Barley and rye both promise a large yield. The early barley is large, has headed out, and, notwithstanding the heavy rain, has fallen very little. The late barley is certain to do well.

Corn planting has commenced, and as the ground has had a thorough wetting a large crop may be anticipated on land not irrigated. Where irrigation is practiced they always raise crops, unless they use too much water, which is unfortunately too often the case. We have a large number of farmers (so called) in this county who devote their lives to the study of how to live without work, and they flood their lands with water until they drown the life out of it, and raise any alkali that may be in it to the surface and destroy its productiveness. I know of valuable tracts of land that when first cultivated produced 100 or more bushels of corn per acre, that from excessive watering now will not produce any crop, and can only be restored to their former productiveness by thorough drainage. But draining land is *too much like work* for these land destroyers. Digging ditches is work, and that these fellows and the rest of the Kearney party won't do if they can avoid it. Our only hope is to have their places supplied by another class of men, who will improve their land by good farming and sensible management, and will *increase* instead of *destroying* its productiveness. No part of this State offers such inducements to this latter class as the moist lands of the Santa Ana and San Gabriel valleys, and the sooner the former class emigrate to ——, Arizona or Texas, the better it will be for Los Angeles county. The *do nothings* will make room for the *do somethings*.

Our grass crop will be enormous this year. It already stands from 1 to 3 feet high, and is still growing. Our stock have had abundant feed all winter, although the cold weather kept the grass back. Still there was plenty of it to have fed the thousands of cattle and sheep that starved in the north. The fact is, and there is no controverting it, this is the best fruit country, the best farming country, and the best stock country in the United States of America, and add to that the best and healthiest climate in the world, and, to crown all, we have ample room for thousands of good people to come and enjoy these many advantages.

WM. R. OLDES.

ANAHEIM, Cal., April 20, 1880.

THE VINICULTURAL COMMISSION about to be appointed by the Governor should, in our opinion, be largely represented from Southern California, the product of whose broad vineyards enter so largely into the the commerce of the State, and contributes no small pittance to the treasury of the General Government. And although the Legislature practically ignores this section in its estate deliberations, we trust that Governor Perkins will see to it that we are fairly represented. Southern California should have at least two representatives on this Commission, and such names as J. De Barth Shorb and L. J. Rose would give general satisfaction throughout this lower country, as both are representative vine-men, and have done more to develop the resources of this end of the State in the manufacture of grape products than any other.

WALTER I. MAXWELL paid out over $20,000, last week, for wool.

SEMI-TROPIC
CALIFORNIA
AND
SOUTHERN CALIFORNIA HORTICULTURIST.

Devoted to Agriculture, Horticulture, and the development of Southern California.

Terms $1.50, per year, in advance, postage prepaid.

Address, CARTER & RICE, Los Angeles, Cal.

N. C. CARTER, CHAS. RICE. | PUBLISHERS AND PROPRIETORS.

CIRCULATION - - - - 8000.

MONTHLY SERMON.

What does the word "economy" mean? Does it mean the mere laying away of money, the mere pinching of our needs and taste that we may have a fund laid by against a possible future—that, after all we may never see? Does it mean to be stingy, to refuse to give for this good object, or to assist that deserving but less fortunate neighbor? None of these; true economy is possible to the rich, as it is necessary to the poor. Economy signifies management; the regulation of affairs both domestic and public. It does not mean that the tired wife shall devote each moment of her life to hard work; by doing so she is guilty of the gravest waste. It does not mean that the father shall deny himself the newspaper, which will be rest and nourishment for his weary brain, and of value to the rest of the family. It means that all members of the household shall be provided with every comfort that will help them to enjoy life in a rational manner, and thus become useful to themselves and those around them. But nothing should be wasted; the silly book purchased, the cheap and flimsy but showy garment bought for mere fashion's sake, the superfluous article had because it was cheap; all are indications of a lack of true economy or thrift. Be careful of what you have, buy what you need, and not what you want, and, above all, live within your annual income. Then you will have found that economy, rightly understood, has brought you many comforts and some luxuries.

FREE.

A map of California and Nevada, size 20 by 24, accurate and correct to date, will be given to every subscriber of the SEMI-TROPIC CALIFORNIA who pays $1.50 for one year's subscription. This offer holds good until the fourth of July.

The wool clip of the Warner ranch, San Diego County, reaches 100,000 pounds; the price now is thirty-five cents per pound.

TWO SHIPS.

THERE are two ships at present in San Francisco bay, one discharging a cargo of wine, mostly that called claret, from a French port, and not far from her another ship taking on board a cargo California white wine, stated to amount to 150,000 gallons, of which one house—Gundlach's—sends 50,000, mostly, if not entirely grown at Sonoma, for a port in Germany. We understand that the order sent to Gundlach & Co. was for 100,000 gallons. This tells a pleasant tale for the growers of white wine at Sonoma. Germany has escaped the visitation of phylloxera so far, and we ask, why have the German wine merchants come into our market? And the reply to hand is that for the last two vintages the seasons were not favorable for the production of the average amount of spirit and body, so the wine treaters send all this distance for our products to improve their own. Surely no greater guarantee of the natural goodness of our white wines can possibly be offered. The renowned growths of the Rhine are familiar as household words over the length and breadth of the globe, and certainly the German merchants would not risk their reputation if they were not satisfied already about the intrinsic value of our light white wines. But the odd thing is that only foreigners drink the produce of our vineyards, while the Americans proper will have, at five times the price, the coopered wines of Europe, watered, fortified and mixed. To any unprejudiced mind, the comparison of California wines in bulk with imported wines in bulk is in favor of the former. And now that there is so much complaining about the Chinese sending a portion of their hard earnings to their own country, might it not be worth while to think a little about the amount of money sent to France, which never returns, to supply a worse article than we produce at our own doors. Mr. Chotteau is no doubt a very clever and patriotic gentleman, and loves France and French interests like a true Frenchman; and perhaps we owe it to American Providence, in the persons of Messrs. Haraszthy, Wetmore and a few others, that we have for the present escaped being shown up to the world by his intriguing as mercantile blockheads, instead of the smart business men we claim to be considered.—*S. F. News Letter.*

The mustard plant, so small in this country, in the valley of the Jordan is often ten feet high. Sometimes it is as tall as a horse and its rider. Its stem is about one inch thick. Small birds, such as goldfinches and linnets, settle among the branches in flocks for the seed, and sometimes much larger birds are seen in these trees.—*The Witness.*

We know in California what the "mustard plant" is—the statement in the New Testament is not exaggerated. We have frequently seen the stalks ten feet in height on whose branches "the fowls of the air" might securely rest.—*Chris. Advocate, S. F.*

Stay at One Place and Grow Up with the Country.—Those people who sometimes become discontented and think they would like to go elsewhere to live or to engage in business, would do well, before making a change, to remember that many of those who do go away either come back or write to their friends who remain that they would like to return. People may mourn for departed early days, when the "flush times" were, but such times are not to be found now anywhere, and to run about looking for them is a wild-goose chase. Energy, investments, and frugality at home are better guarantees of success and prosperity than a roving life, or a disposition to go far for what is not so good as may be had at one's own door.—*Napa Register.*

Keeping Butter with Borax.—The Italian Minister of Agriculture gives an account of experiments which have been made at the Experimental Station at Florence, to the effect that butter, purposely not freed from buttermilk, kept perfectly sweet for upwards of three months by the addition of about eight per cent. of borax. It is stated that the borax should be dry, in fine powder, and thoroughly mixed with the butter. A friend of ours is experimenting with both borax and boracic acid in butter, and will in due time report results.

EASTERN READER,

WHAT DO YOU THINK OF THIS?

Semi-Tropic California (1 year)	$1 50
Pocket Map of California and Nevada (20x24)	50
Regular price	$2 00
Sent to any EASTERN address for	1 00

If you want to know about California, and have a correct map of the State, now is your chance. This offer is good only until June. Send post-office order, currency or stamps; give name of post-office, county and state.

Address Carter & Rice,
Los Angeles, Cal.

Messrs. Rees & Wirsching, Los Angeles street, are the agents for the celebrated Newton wagon, and farm and spring wagons of every description. They are making preparations to manufacture, on an extensive scale, wagons suitable for this country, and deserve the patronage of our farming population.

Los Angeles County's cash receipts from Arizona trade amounts to $100,000 per month. The finding of mines in Arizona is the means of opening mines for our farmers. Produce of every kind is in demand at good prices.

A boy who is polite to his father and mother is likely to be polite to everybody else. A boy lacking politeness to his parents may have the semblance of courtesy in society, but is never truly polite in spirit, and is in danger, as he becomes familiar, of betraying his want of courtesy.

We will answer all communications addressed to us in reference to California through this column. We will answer regular subscribers by personal letter, when stamp is inclosed for postage.

MISTAKE OF HIS LIFE.

PROVIDENCE, R. I., March 22, 1890.

MESSRS. CARTER & RICE: The three copies of your very interesting journal are at hand, and I beg to inclose herewith $2 00 ($1 50 in P. O. order and 50 cents in stamps) for one year's subscription to the SEMI-TROPIC and the AMERICAN AGRICULTURIST. It seems odd to send a subscription to the AGRICULTURIST way round by Southern California.

Your paper is interesting to me, as it treats of a portion of our land more nearly approaching Paradise than any other that I know of. Everything that goes to make up perfect physical conditions you have, and the mental, moral and social are no doubt rapidly approximating those of the older settlements of the East. But one thing you must do, if you would encourage Eastern emigration, and that is, get rid of Kearney and Kearneyism; not by violence, but by the expression of an overwhelming public opinion. Capital (and you certainly do not want new-comers without capital) will not be attracted by the most tempting offers while the body politic is in such a state of ferment. I am very glad to learn of the business improvement manifested in all branches of trade, and fear I made the mistake of my life (pecuniarily) when I failed to buy "Oak Knoll" of Mr. Shorb, and make the beautiful valley of San Gabriel my home.

With best wishes for your prosperity, I am very truly yours, C. A. H.

I SEE the remarks on alkali soils, by Mr. Potts, in your last issue, just to hand. There can be no question that a good deal of the alkali lands contain an uncommonly large supply of plant food, as you will see by reference to the subject in my late report, which was mailed to you some time ago. Some contain large amounts of potash, others phosphates, and still others, nitre, in unusual quantities. Still, the larger portion, and in some cases, all of the visible alkali consists of salts useless or injurious to vegetation, and upon the removal of this excess from the surface depends the reclamation of most of the alkali lands of the State. I am just now studying up the subject, in connection with that of irrigation, in the Upper San Joaquin and King's River valleys, where the question assumes a tremendous importance.

By the way, please inform your readers that the late report of my department will be mailed to any address upon request, so long as the edition holds out.

E. W. HILGARD.

OLIVE TREES at the age of fifteen years are worth $10 each, a hundred trees to the acre, bringing in an income of $1,000 per acre.

Editor's Table.

OUR table has been most beautifully provided this month.

In addition to our immense exchange list, we have received a large number of books, catalogues, circulars, etc., of which our book reviewer will make due mention in our next issue.

Of the products of semi-tropic California, we have been kindly remembered by the friends of our paper.

A box of oranges from Pasadena Exposition was much admired and appreciated, not only by ourselves, but by many strangers visiting Los Angeles, who called in our office.

Mr. L. Barnes, of the Dwarte, near El Monte, again places us under obligations for as fine looking and good tasting oranges as it has been our lot to sample. That he lives in an orange country is fully demonstrated by the samples on our table.

Flowers, beautiful flowers have decorated our table from the grounds of Mrs L. Young, Mrs. Crawford, Miss Florence Carter, and several who left their tokens of good will and friendship without leaving their names. We intend to make an engraving of some of them in the future.

THE VICTORIA REGIA SURPASSED.

IF our Golden Gate Park Commissioners propose to sustain their eminence as introducers of the majestic in floriculture, they must lay their Victoria Regia aside, and open correspondence with the authorities at Florence, Italy. For we read in a European exchange that Signor E. Beccari, an Italian, has recently discovered in Sumatra a plant which he names *Conophallus titanum*, the flowers of which completely obscure the blossom of the Victoria Regia. According to the published description of this plant, the swell of the spathe is 32½ inches in diameter, and the naked portions of the spadix measures no less than 5½ feet. The color of the spathe is a brownish purple-red, and that of the spadix a dirty yellow, as is generally the case with flowers which, like the *Conophallus* and the *Rafflesia*, attract, by their peculiar odor, insects and animals feeding on carrion. The loft of this plant, of which, at first, Beccari only succeeded in finding one specimen, was 3½ feet in circumference, and so heavy that two strong men could scarcely manage to carry it; its single leaf had a stalk 10½ feet long, and 35 inches in circumference at its base. The leaf stem is smooth, green, and thickly covered with circular white spots. The three branches into which this stem divided at its upper end, were as thick as a man's leg, and by repeated subdivisions, form a spread over 3 feet long, supporting a leaf whose superficial surface exceeds fifteen square yards. The stalk of the fruit is about the same thickness as the leaf stem, and in the example found by Beccari the fruit-bearing portion of it was 20 inches long by 30 inches in circumference, and thickly covered with olive-shaped fruit of a reddish color.

Climate.

WAR DEPARTMENT—SIGNAL SERVICE U. S. ARMY.
Local Observations, Los Angeles, Cal., March, 1890.

Highest Barometer, 30.342; date, March 26.
Lowest Barometer, 29.872; date, March 4.
Monthly range of Barometer, 0.440.
Highest Temperature, 73.5; date, March 22.
Lowest Temperature, 36.0; date, 5th and 16th.
Monthly range of Temperature, 37.5.
Greatest daily range of Temperature, 22.3 deg.; date, March 7.
Lowest daily range of Temperature, 10 deg.; date, March 2, 3 and 24.
Mean of Maximum Temperature, 62.7 deg.
Mean of Minimum Temperature, 42.0 deg.
Mean daily range of Temperature, 20.7 deg.
Total rainfall, or melted snow, 1.45 inches.
Prevailing wind, N. E.
Total movement of wind, 2,622.
Maximum velocity of wind and direction, 17 miles N.; date, March 14.
Number of clear days, 16.
Number of fair days, 10.
Number of cloudy days on which rain fell, 2.
Number of cloudy days on which no rain fell, 3.
Total number of days on which rain fell, 4.
Dates of frost, March 9th, 13th and 16th.

J. M. FRANTZ,
Sergeant Signal Corps U. S. Army.
Station, Los Angeles, Cal.
Date, March 31, 1890.

HENRY IVISON, of the great publishing house of *Ivison, Blakeman, Taylor & Co.*, New York, with his wife has been spending a part of the winter with his brother-in-law, Mr. T. C. Severance, in this city. They express themselves as delighted with the country and climate. Mr. Ivison, now 72 years of age, said to one of our editors: "*If* I was only twenty years younger I would not hesitate a minute in deciding to buy a home here in this magnificent climate."

CHILDREN'S COUNTRY.—From statistics of the Federal Census we find that the percentage of infant mortality under the age of five years is forty per cent. in the Eastern States, whilst the percentage in Southern California is only twenty-two. This implies that, of ten children who die in Eastern cities, five might be saved by keeping them in Southern California for the first five years. The time will probably come when a large number of infants will be sent to spend their early years away from the hot malarious districts where their parents are compelled by imperious business to live; and no better place can be found than the coast districts of California for the rearing of children.

JOTHAM BIXBY, one of the most enterprising men in the State, and owner of Los Cerritos Rancho and Los Palos Verdes Rancho, is making arrangements to build a wharf at Fayal, about half a mile below the new wharf of the P. S. S. Company. The deep water and convenience of access will make this one of the best landings. We are pleased to learn that Mr. Bixby is offering his lands at the very lowest prices, and on most reasonable terms. Persons interested in buying lands for settlement, as individuals or in colonies, should see or address Jotham Bixby, Los Angeles, Cal.

SEMI-TROPIC CALIFORNIA $1.50 a year.

Agriculture.

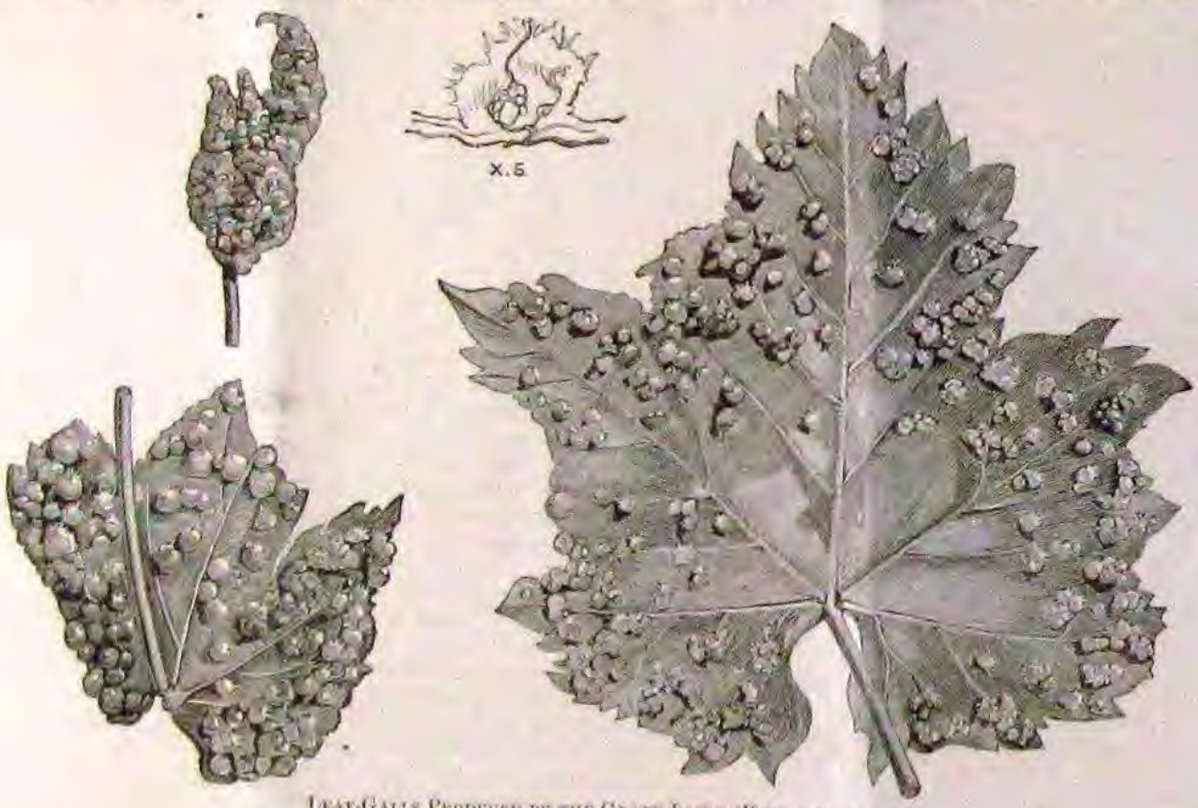
LEAF-GALLS ON THE GRAPE VINE.

THROUGH the courtesy of the *American Cultivator*, Boston, we are allowed to illustrate the much-dreaded phylloxera. So far it has not put in an appearance in Southern California, and is much to be hoped that it will keep at a respectable distance. Prof. Hilgard expresses the belief that the phylloxera in Sonoma county is wingless, and not likely to be carried abroad except by means of roots, soil, or cuttings. The insect does not even cross a road from one vineyard to another. If these facts can be established, it relieves the vineyardists of much anxiety about the spread of this dangerous pest, and shows that the creature may be cornered and controlled.

The *American Cultivator* says, in connection with the cut:

"Leaf-galls, as represented in the illustration given on this page, are the galls of the phylloxera. Each gall, according to Prof. C. V. Riley, contains a wingless mother-louse and her more or less wingless eggs, from which hatch young lice, which spread to other parts of the vine, and form galls as their parents did. There are several generations of this gall-making forms of phylloxera vestatrix, which is but a temporary or transient form of that pernicious insect, occurring more abundant on the Clinton, but found also on almost every other variety of our American grape vines, both wild and cultivated. It appears very generally over the whole of the United States east of the Rocky Mountains, and even in Ontario. It may be very abundant one year, and scarcely noticed the next; and while sometimes causing the destruction of all the leaves, does little injury to the vine, in comparison with that effected by the more permanent root-inhabited form, of which so much has been written in recent years.

"This root-inhabiting form causes swellings upon the more fibrous roots, and goes through a regular and constant cycle of development, winged females being produced in late summer and autumn, by which the species may disperse over extended areas. Sexual individuals are also produced, the female of which lays a solitary impregnated egg under the bark of the more permanent parts of the vine. The gall-inhabiting form exists only in the female sex, and descends to the roots at the end of the growing season. Its propagation is essentially similar to that of budding in plants, and the succeeding generations may be looked upon as but continuations of the regular stem-mother. The root-inhabiting form, while possessing the same power of bud-production, likewise combines that of true sexual reproduction, so that it may be said to multiply both by bud and by seed. The comparison of the propagation of phylloxera with that of plant is quite permissible, and really warranted from a physiological stand-point. The gall-making insect is much more often observed than the root-inhabited form, though the latter is so exceedingly destructive compared with the former."



LEAF-GALLS PRODUCED BY THE GRAPE LOUSE (PHYLLOXERA),
The Insect now causing so much destruction in French Vineyards.

AGRICULTURE IN LOS ANGELES.

LOS ANGELES county stands first among the counties of the State in the following particulars: In the number of bushels of corn raised; in the number of acres cultivated and pounds of castor beans; in the number of acres and pounds of tobacco raised; in the number of pounds of wool grown; in the total value of the fruit crop; in the number of bearing lemon and orange trees; in the number of gallons of brandy made; in the number of acres of land irrigated, and in the number of miles of railroad and in the number of railroads. In the following she stands second, or next to the highest: In the number of gallons of wine made; in the number of acres of corn planted; in the number of acres and bushels of buckwheat; in the number of acres and tons of sweet potatoes; in the number of bushels of onions; in the number of bearing olive trees; in the number of grist mills; in the number of bushels of corn ground.

She stands third on the list in the number of acres and bushels of peas; in the number of acres and bushels of peanuts; in the number of acres of onions planted; in the number of pounds of honey; in the number of horses, and in the number of tons of coal mined.

Fourth, in the number of acres and bushels of rye; acres and bushels of beans; tons of potatoes; number of grape vines; value of real estate assessed, and in total valuation of all property.

The dairy business has been greatly neglected here, and offers a most prominent field for increased energy and investment. Next year's report will show a marked improvement in this industry, and also in the acreage and bushels of wheat, the acreage and tons of sugar beets, and the number of hogs over the last or any previous year.—*L. A. Journal.*

THE ARIZONA REVOLUTION, AND ITS RELATIONSHIP TO CALIFORNIA.

ON the night of the twentieth ultimo, just after we had put our April issue to press, Arizona Territory, the "back country" of Southern California, as she has been called, was awakened from her sleep of two centuries or more, and realized the fulfillment of the dream of those of her citizens who have known something of her hidden treasures through the trifling prospecting of the past twenty years. The iron horse—the revolutionist of the present century—aroused from slumber with his stentorian voice the living citizen of Arizona's emporium, and shook the graves of her dead with his majestic tread. He proclaimed a new order of things, and wrought a change not far from miraculous in our hitherto dormant neighbor. It was the transfusion of a quickening, revivifying current into the sluggish circulation of the social, financial and industrial life of our heretofore hardly accessible and manacled sister. On that pleasant Sunday morning Arizona saw the weary journey of many days to reach her center of trade and population reduced to an excursion of a few more than as many hours. Our own capitalists and energy had opened the way to mineral fields believed to be more extensive and richer than the world has ever known. And now, with arms extended, Arizona invites all to come and partake of the riches she has to offer to the hand of diligent labor. Her golden gates stand ajar. Who will pass through them and gather the pearls within?

A recent visit to a portion of the mining territory of Arizona leads us to believe she has not been overrated in the estimates made of her mineral worth. And we will allow a failure of forty-nine out of every fifty hopeful claims, and even then she will stand forth as the brightest jewel in the silver diadem of America. The steady flow of bullion from the few mills now running justifies the belief that when their number is augmented to even the requirements of present opened claims, the now weekly shipments of thousands will be counted by the hundreds of thousands, and amount to many millions per annum.

The revolution wrought so near us of course can not have otherwise than a stimulating effect upon our industrial and commercial interests. It is already noticeable that the railroad company has been called upon to double its transportation facilities, and the telegraphers are hurrying up more wires, that the large business offering may not suffer for the want of means for handling it. Real estate values have appreciated, and the thoughtful and observant see now the dawning of the day of prosperity, promised us when the rails should be continuous through Arizona and New Mexico to the Eastern States.

The fact accomplished, and the prospects before us, we would commend to the attention of the orchardists and farmers of Southern California more especially. If they are ever to enjoy a harvest, it is now immediately before them. The sterile plains of Arizona will do but little to feed the throngs now rapidly gathering upon them. They must draw largely from California for food, and totally for raiment and luxuries. And with freight rates and distance largely in our favor, it will be only through the negligence of our people if they do not provide for the wants of Arizona, and profit largely by the traffic. There is a large and growing demand for all dairy products; for all vegetables, fresh, dried and preserved. The demand for fruits, canned, bottled, dried or fresh, is largely in excess of our productions, and more than our yield is likely to be for years to come. Meats, preserved and canned, in all shapes, are in large demand also, and the preparation of them for the market can but be profitable. We call the attention of all who may be in the line of this trade to the advantages that are now within their grasp, that they may profit by Arizona's revolution.

R. R. H.

Los Angeles, April 20.

View in Mojave Desert, California.

If the Anaheim or Odessa wheat proves a success this year (as it undoubtedly will), wheat growing will be one of the leading industries hereafter in this county.

PACHECO'S DOMAIN.

EX-GOVERNOR PACHECO, who represents California's fourth district in Congress, is a native born Californian of Spanish father and American mother—born at Santa Barbara in 1831. Hear the names of the counties composing his district, and think how vast, how virgin and how wild the section that he represents: Fresno, Inyo, Kern, Los Angeles, Mariposa, Merced, Mono, Monterey, San Mateo, San Luis Obispo, San Diego, San Bernardino, Santa Barbara, Santa Clara, Santa Cruz, Stanislaus and Tulare. In Mariposa county lies the awful and beautiful valley of Yosemite, keeping inviolate God's secret of its birth. In Monterey the Franciscan fathers first planted the standard of the cross; in Inyo, lurking earthquakes quiver; in Santa Clara lies "San Jose the beautiful;" and the broad vineyards and shady groves planted by the devout monks of a century ago; Los Angeles, the imperial county, rich in her wines, oranges and semi-tropic fruits, with her rare old missions over a century of years, beneath the sunny skies of Tropical California.

Not a county of all these 17 but is rich in fascinating and vivid associations; and this dark-browed Spaniard, with magnetic eyes and voice, holds in his slender hand the key to a grander and fairer territory than your "imperial" New York, with her 33 Congressmen. I respectfully admire New York, with her teeming population, her thickly-woven network of politics, her manifold industrial interests. I am devotedly loyal to all her great Republican statesmen no matter how they impinge against one another in their overlapping ambitions; but I am a western woman, and my heart is of the West, and I do confess that for steady living I like a "roomy" country, where the honest voter draws his huge sombrero over his forehead, and, with a pistol handy in his belt, bestrides his nasty little dun mustang, and rides a little matter of 25 or 30 miles to the polls through the bracing mountain air. There is some magnificent human nature in the hardy men who went pioneering into those wilds in the early day.

"To make the West as you the East,
The homestead of the free."

I know them by the blazing firesides of their mountain homes; I have taught their children, and wept beside their dead; and God has not made many nobler.—*Washington cor. of Troy Times.*

SEMI-TROPIC CALIFORNIA only $1.50 a year.

Horticulture.

SANTA BARBARA, VENTURA AND SAN DIEGO AT THE LOS ANGELES EXPOSITION.

By John H. Shields.

THE logic of facts is the strength of my communication. I was but one of many thousands who witnessed the displays at the last Los Angeles Exposition. The following mention of a few of the displays will answer many questions by the more remote readers of the Horticulturist.

SANTA BARBARA COUNTY.

The display of olive oil made by Mr. Ellwood Cooper was enough to strengthen confidence in the olive industry of California.

O. N. Cadwell, of Carpenteria, Santa Barbara county, exhibited deciduous fruits. Among them were forty varieties of apples, from seedling trees, originated by Mr. Cadwell. His seedling Yellow Belle Fleur was 11½ inches in girth; his Yellow Belle Fleur from a graft was 12½ inches in girth. The seedling tree came of a seed from the graft. The two apples were alike in shape, degree of ripeness, aroma and also in color, with the exception of the large patches of crimson on the prevalent yellow of the seedling. Mr. Cadwell's Hoover was 12¼ inches in girth; his Fall Pippin 12½ inches; his Rhode Island Greening 1 foot; his Duchesse d' Angouleme pear 13 inches; his Winter Nellis 11½ inches; Beurre Geir 13½ inches; Columbia 15½ inches; Fall Butter 9¼ inches; Flemish Beauty 13 inches; a seedling pear 12 inches in girth apparently, and perhaps really as good to keep through the winter as the Winter Nellis. Some of Mr. Cadwell's quinces measured from 15 to 15¾ inches in girth. Mr. C. also exhibited specimens of very superior English walnuts, almonds, Irish potatoes, English peas, butter, beans, etc.

Mr. Joseph Sexton, of La Goleta, Santa Barbara county, exhibited soft-shelled walnuts, which I suspect is the Chili walnut. The tree producing the exhibited specimens fruited at La Goleta, the seventh year from the seed; blooms about two weeks later than the English walnut; is thought to be more delicately flavored; is an admirable nut. Mr. L. L. Bequette, of Downey, proposes to propagate the Sexton soft-shelled walnut by grafting. Mr. G. N. Collins made a splendid display of pampas plumes.

VENTURA COUNTY.

Ygnacio del Valle, of the Camulos Rancho, exhibited olives and olive oil, both of excellent qualities; also white wines.

Mr. N. W. Blanchard did himself and Ventura county great credit by his exhibition of choice home-manufactured flour, of home-grown wheat.

Mr. Kellogg O. Sewell exhibited superior cheese.

SAN DIEGO COUNTY.

Mr. H. M. Higgins exhibited thirteen plates of handsome apples, one of which was 14 inches in girth. Two of his Rhode Island Greenings were Siamesed on a single peduncle. At the stem-end there was but one apple; at the bloom-end two.

Mr. Frank A. Kimball exhibited Muscat of Alexandria grapes, raised on a high mesa of the National Ranch without irrigation. One of these grapes was 3 inches in girth.

Mr. George L. Kimball made a fine display of apples, grown on the National Ranch, among them a Yellow Belle Fleur, 11⅝ inches in girth; a Rhode Island Greening, 11 inches.

Mr. Warren C. Kimball, of National City, exhibited olives and paper-shell almonds. The olives were as agreeably flavored as the best imported article.

Mr. Frank A. Kimball exhibitedolives, faultless im flavor; Bay Feed oats, 9 feet high.

Mrs. M. A. Brewster, of National Ranch, exhibited apples, among which was a Gloria Mundi, 1 foot in girth; a Golden Pippin, 10¾ inches; also Fall Pippin, Pearmain, Newtown Pippin, Roxbury Russet, and Yellow Belle Fleur.

Raisins, equal to the imported, were exhibited by Mr. J. C. Frisbe and by Mr. R. G. Clark.

Mr. George C. Swan exhibited the Sheldon pear, 11½ inches in girth; a pear, supposed to be a Glout Morcan, 10¼ inches in girth; Galway peaches, larger and more pleasantly flavored than usual for late peaches; a quince, 16½ inches in girth; six plates of handsome lemons; oranges of the crop of 1878–79, and also of the crop of 1879–80. The oranges were very fine. Those of the crop of 1878–79 were perfectly sound.

Mr. J. M. Asher exhibited the White Veteran banana, a fine specimen; also fine cling peaches.

High Brothers exhibited delicious strawberry guavas.

HOW TO ATTEND THE EXPOSITION.

Mr. H. M. Higgins, of San Diego, knows how to develop an orange grove under difficulties; knows how to run a first-class Chicago music store; knows how to attend an exposition.

Mr. H. has a family traveling carriage and a tent. He and family came from San Diego to the Los Angeles Exposition by tented rests; pitched the tent on Beaudry Heights, near Exposition Hall; set up kitchen, portable bath-house and other domestic arrangements, and were extensively at home. The Higginses, without exercising themselves about the difference between carrying home to the vicinity of the Exposition and of bringing the Exposition to the vicinity of home, did realize the convenience of having home and Exposition close together.

Exposition month being rainless, and the weather in all respects pleasant, the temptation to go picnicing to, at and from the Exposition may induce others to follow the cheerful example set by this tenter from San Diego.

Sea Weeds for the Herbarium.—The receipt for pressing sea weeds for preservation used by the Rev. A. B. Hervey, of Troy, N. Y., well known as an expert in that process, is as follows: Float out each specimen by itself in salt water, in a white dish—take a wash bowl. Put the paper under the plant in the water, arrange the plant on the paper, and carefully draw it out. Lay the paper with the plant upon it on drying paper, and spread over it a piece of white muslin; then spread over this a layer of drying paper; then more plants and then more cloth, drying paper, etc. Put all under a board, and weight it with forty or fifty pounds of stone or other heavy substances. The next day change the cloths and drying paper, and in one day more the plants will be dry and ready to go into the herbarium or the album for permanent preservation.

The Semi-Tropic California has created a market for China lemons, thick-rind lemons and citrons. For particulars inquire at this office.

Speaking of the recent flood, the Napa *Reporter* says: A climb up the steeple of the court-house revealed a startling panorama. To the south, as far as the eye could reach, it looked as if the valley had suddenly been converted into a great inland sea, dotted here and there with islands. A more desolate appearance than the city presented from this point can hardly be imagined.

One of the largest lumps of solid gold ever seen in San Francisco was on exhibition at the office of the Pacific Refinery, corner of Montgomery and California streets, a few days since. It was about 14 inches long by 7 in width and 6 in hight. Its value was estimated at $55,000.

PLANTS GROWN
for transplanting, and Fruit for the market.
100 Acres planted with Berries **100**
Varieties of Selected Fruits
See New Catalogue for what sorts to plant. *Sent free.*
JOHN S. COLLINS, Moorestown, N. Jersey.

Fruit and Farming Land

The undersigned offers for sale, on reasonable terms and in lots to suit, several hundred acres of

FRUIT AND FARMING LAND

IN LOS ANGELES COUNTY.

The above land is well supplied with water, and will be sold with water right and water stock.
Also, a few CHOICE LOTS in the city of Los Angeles, improved and unimproved.
Call on, or address the owner,

H. S. Orme, M.D.,
Los Angeles, Cal.

CARP.

OUR correspondent visited the new carp ponds of J. H. Pettit, San Bernardino county, and from him gleaned the following facts:

A carp pond may be made in any basin that can be made to hold water—the quality of the soil, though strongly impregnated with alkali, seeming to be of no consequence whatever. The arrangement of carp ponds for convenience of breeding, feeding, drawing off, etc., has no fixed rule, but varies according to local surroundings, and is the easiest of all fish-ponds to construct. For the carp, although a scale-fish, resembling in size and shape the fresh water bass, has some of the habits of the common catfish, feeding much in the soft mud at the sides and bottom of the pond.

CARP FEED.

Mr. Pettit has fed to his carp, coreless weed, parsley, lambsquarter, water cress, boiled cabbage, carrots, turnips, beets, potatoes, bran, shorts, cornmeal, chopped barley, wheat, any kind of meat, liver, lungs, entrails, blood, in fact most anything that a hog will eat will be devoured by them greedily.

GROWTH.

The first measurements made by Mr. P., in March, 1878, showed his largest carp to be only six and seven inches in length, while in November of same year he found several specimens ranging from fifteen to twenty-one and a quarter inches in length. A specimen weighing two and a half pounds was eaten in October, 1878, and was very fat, and a most excellent table fish. On February 19, 1880, one was taken twenty-three inches long, weighing five pounds.

The carp is very prolific, increasing rapidly in numbers, and is said to live to a very great age.

Levi Davis, in *Record-Union*, quoting from Bingley's History, says: The carp tribe, for the most part, inhabit fresh water, where they feed on worms, insects, aquatic plants, clay or mold. Some of them are migratory. Most of the species, which are numerous, are found only in the northern part of Europe, and consequently were unknown to the ancient naturalist of Greece and Rome. The common carp, in their general habits, exhibit so great a degree of cunning as to be called the river fox.

When attempted to be taken by a net, they will often leap over it, or immerse themselves so deep in the mud as to let the net pass over them harmlessly. They are very shy of taking the bait, but during spawning time they are so intent on the business of depositing their own ova, that they will suffer themselves to be handled. They spawn three or four times in the year, but their first spawning is in May.

Carp are found in the sluggish rivers and stagnant waters of Europe and Persia, and here, principally in deep holes, under banks, on great beds of flags, etc. They do not often exceed four feet in length and twenty pounds in weight, but Zovins mentions some caught in Lake Como, Italy, that weighed two hundred pounds each, and others have been taken in the Dneister five feet in length.

From their quick and vast increase, they are considered the most valuable of all fish for stocking ponds, and if the breeding and feeding of them were better understood and more practiced, the advantage resulting from them would be very great. Dr. Smith, in speaking of the Prince of Conde's sea at Chantilly, says the most pleasing things about it were the immense schools of very large carp, silvered over with age, like silver fish, and perfectly tame, so that when a passenger approached their watery habitation they used to come to the shore in such numbers as to heave each other out of the water, begging for bread, of which a quantity was always on hand on purpose to feed them. They would even allow themselves to be handled.

Carp are very long-lived. The pond in the garden of Emanuel College, Cambridge, contained a carp that had been an inhabitant of it more than seventy years; and Garnet has mentioned an instance of one that was a hundred years old. They are also extremely tenacious of life and will live for a great length of time out of water.

CARP CULTURE.—Mr. Davis, the carp culturist, says: "In summing up the result of my experience in carp culture, let me say I made a blunder, or put it in such shape that you could not understand it. My fish cost me $5 each, or the whole $30; their feed $10 a year, $40; my ponds $50 apiece, $200; making in all $270; and I sold fish for $415. Taking out the $270 makes my gain $145. Since writing you I have been at the drawing off of one of my neighbor's breeding ponds, and I have seen some nice fish. There were almost 2000 young fish in all. It was a small pond; I hardly think there is in it the eighth of an acre. It is at the head of a cold spring, and the fish were not as large as they would have been if the water had been warmer; they will not grow as fast in cold as they will in warm water. I have had the best growth in the pond when the water got up to 88 degrees, which is higher than ordinary fish will live in, especially trout."

NEVER in the history of California has the outlook been more promising than now.

California, the "Golden State," known the world over for her precious metals, now comes to the front as *the great* agricultural State of the Union.

Gold is no longer king, but yields the sceptre to king Agriculture. Wheat, hay, barley, potatoes and corn; wine, raisins, oranges, lemons and fruits of all kinds; wool, sheep, stock and the dairy; all go hand in hand to fill the coffers of the man who turns the furrow and makes the earth bring forth in abundance.

Southern California especially presents a magnificent outlook. Los Angeles county has 100,000 acres in wheat, 90,000 in barley and 60,000 in corn, 2000 acres in flax and as many in castor beans, 1000 acres in sugar beats and 6000 in alfalfa.

Over 50,000 acres of land have been plowed this year for the first time, making a grand total in cultivation of over 300,000 acres, leaving nearly 1,000,000 acres of tillable land in Los Angeles yet to be cultivated.

With the immense crops that will be gathered this year we can invite immigration, and assure every one who comes with some money, strong arms, and a will to work, success and a home of comfort and plenty.

From the careful estimates made by the reporter of the San Francisco *Chronicle*, it is safe to state that the money value of the products of Los Angeles, Cal., for 1880, will exceed $6,000,000.

San Bernardino county is reported to have about 50,000 acres in wheat, barley and other crops, with a most encouraging outlook. In addition to the bright agricultural prospects, the mines of Santa Barbara county promise a boom in the production of the precious metals.

Santa Barbara county has in cultivation 30,000 acres, planted in barley, wheat, orchards, English mustard, etc., with a most auspicious outlook.

San Diego county has 25,000 acres under cultivation, fully one tenth more than last year; an equal amount of wheat and barley sowed; agricultural outlook never better. The honey prospects of San Diego county are good, and the world look to her for the choicest of the choice honey.

The vineyard, orange and olive interests promise exceedingly well.

The success in railroad interests of the city of San Diego can only be a matter of time. With the finest harbor on this coast, with 500 miles less of rail to connect seaboard with seaboard, there is no reason under the sun why she shall not in a short time be one of the great cities of the Pacific Coast.

Ventura county sends up a most promising prospect for this year's crop. Instead of making barley *the* great staple of production, there is a desire to raise a variety of products. The people of Ventura propose to give sorghum cane a fair test this year by planting a large acreage. The requisite machinery will be put up for properly working the sugar cane, and we expect good reports from the experiment.

Fresno county has sown in wheat 225,000 acres—what an immense wheat field!—25,000 acres in barley, all in excellent condition, and promising a yield of from 25 to 40 bushels to the acre. Several hundred acres have been planted in raisin grapes.

Kern county reports a largely increased area planted in wheat, barley, alfalfa, etc., with an encouraging outlook.

PEACH trees give promise of a large crop this year, and we hope every peach will be utilized by canning, drying, or in making brandy.

CATHOLIC CATHEDRAL.

THE Cathedral structure, of which the engraving in this number is a representation, was commenced in 1871, and finished, dedicated and consecrated April 30, 1876. It has a frontage of eighty feet, and extends in depth one hundred and sixty feet. It was constructed at an expense of some eighty-five thousand dollars.

The architecture is a rare combination of strength and symmetry. It was modeled after the Cathedral of Barcelona, in Spain, the predecessor of which was destroyed by an earthquake, and was designed and constructed with a special purpose to resist the convulsions so prevalent in that region. The exterior of the Los Angeles Church is a composite of the Moorish and Spanish orders, somewhat quaint and yet very pleasing. Its interior, with its large yet proportionate space, its excellent frescoing, its Corinthian columns, and chaste ornamentation, and exquisite acoustic properties, has received general admiration from traveled connoisseurs. It has no superior upon the Pacific Coast. It may be remarked that it is the only Catholic Church edifice in California that has passed through the Catholic ceremonies of consecration.

LOS ANGELES CATHOLIC CATHEDRAL, ST. VIBIANA.

SEED CORN. — If any one's last crop of corn was not of as good quality as desirable, and a neighbor or distant friend has some better sort, make it a business to get some of it for seed, *now*, and have it ready when the day of planting comes. In selecting, note the time of ripening, size and number of ears on stalk, size of stalk, quality of the grain, and all other important points.

We are all sculptors and painters, and our material is our own flesh and blood and bones. And nobleness begins at once to refine a man's features; any meanness or sensuality to imbrute them.

The largest orange at the Pasadena Citrus Fair was exhibited by R. R. Byant, of this city, and measured 15¾x16 inches.

A SURPRISE DAY AT PASADENA.

THE INFANT WONDER MAKES A FINE SHOWING AT HER CITRUS EXPOSITION.

SURPRISE to every one, even to themselves, was the exhibition of citrus fruits at Pasadena on the twenty-fourth and twenty-fifth of March.

The "Head of the Valley" of San Gabriel, picturesquely nestled at the foot of the Sierra Madre, is Pasadena with her beautiful homes of comfort and plenty.

Six years ago not a foot of overturned soil, nor a tree nor vine here told of the habitation of man. During April, of 1874, the first work was done, and now, as if by magic, the slopes are covered with orange groves and vines, the valley is rich with fruit and wine. Each farm is crowned with a comfortable home place. Many of the residences are handsome and elegant; all are pretty and picturesque, a pleasing peculiarity of Southern California architecture being light and airy gracefulness. The resources of this lovely spot are wonderful, showing a rare application of judgment and labor on the part of the enterprising colonists.

THE FAIR

Was held in the hall of the commodious school building. Upon entering the room the first surprise was the exquisite floral decoration of the interior, and artistic arrangement of the exhibits. Flowers, evergreens and pampas plumes suggested midsummer instead of March to the many Eastern visitors present.

The long tables ranged around the walls and occupying the center of the room were covered with white cloth, and piled up almost to overflowing with pyramids of golden oranges, lemons, and limes, with pleasing variety in exhibits of canned and preserved fruits, raisins and other dried fruits arranged in a tantalizingly tempting manner.

To enter into a minute description and personal mention of every exhibit would fill not only this entire paper but every number of it during the remainder of this year.

THE OPENING ADDRESS,

By D. M. Berry, of the *Commercial*, Los Angeles, who was one of the founders of the colony, was very appropriate, and we give the closing part of the address as the closing part of this article, intending to write farther, in our next, of Pasadena:

"TO WHOM CREDIT IS DUE."

To the excellent judgment of Messrs. Calvin Fletcher, A. O. Porter, B. S. Eaton, Col. J. Bunbury, and W. T. Clapp: to their clear judgment, thoughtful and careful consideration, and disinterested services, Pasadena to-day owes much of its prominence as the most beautiful settlement in the State. When struggling with suffering and disease in the Atlantic States, with every step a burden and every breath a pain, there sometimes came to me a vision of a fair land of song-birds and sunshine, where winds were temperate and rare, and tornadoes and typhoons unknown; where flowers and fruits were perpetual, and the sweet air brought color to the faded cheek, light to the hungry eyes, and strength to the wasted frame; while the deep, rich soil responded to the endearments of cultivation with a bountiful blessing. The vision strengthened to a hope, but hardly became as substantial as an expectation. But to-day the vision and the hope are transmuted into a reality, and before me stands peerless Pasadena, with orchards blushing at the smile of the sun,

vineyards more rich than those of Eschol, clad in emerald robes and decked in bridal blossoms which the golden orange has brought to her coronation; and the vision is rounded and complete.

"I know not how in other lands
The changing seasons come and go;
What splendor falls on Syrian sands,
What purple lights on Alpine snow;
Nor how the pomp of sunrise waits
On Venice at her watery gates;
A dream to me is Arno's vale,
Alhambra's halls are but a traveler's tale.

"Yet on life's current he who drifts
Is one with him who rows or sails,
And he who wanders widest, lifts
No more of beauty's jealous veils
Than he who from his door-way sees
This miracle of flowers and trees;
The eye may well be glad that looks
Where Pharpar's fountains rise and fall;
But he who sees these native brooks
Laugh in the sun, *has seen them all.*"

RAISINS.

EDITORS SEMI-TROPIC: The varying natural conditions in soils, climate, altitude, temperature, moisture, etc., in the most attractive and prominent localities favorably mentioned for homes in our Semi-Tropic region, renders it highly essential to speak more in exact measure of these differences than is usual in the extravagant hyperboles too commonly indulged in. But space precludes, in this article, an attempt at a discussion of these various interesting questions. A few exponents of the vineyard product the past season are herein submitted as an appetizer to the hungry maws of the ambitious in the specialty of raisin-making, and also to stimulate experiments on untried soils, without irrigation, leaving the text proper for another occasion.

My vines are of the Muscat variety, and three years from cuttings, and also without irrigation from the setting. Former care of the same has not been with the view of raisin-making; hence it is safe to assert that they have lacked the proper attention in some respects that would have been to their advantage. But such as it has been, I am now enabled to present the following as the returns for the crop just marketed:

Gross receipts	from	raisins	per acre		$61.76
"	"	"	grapes	"	13.00
"	"	"	cuttings	"	13.98
Total	-	-	-	-	$88.74

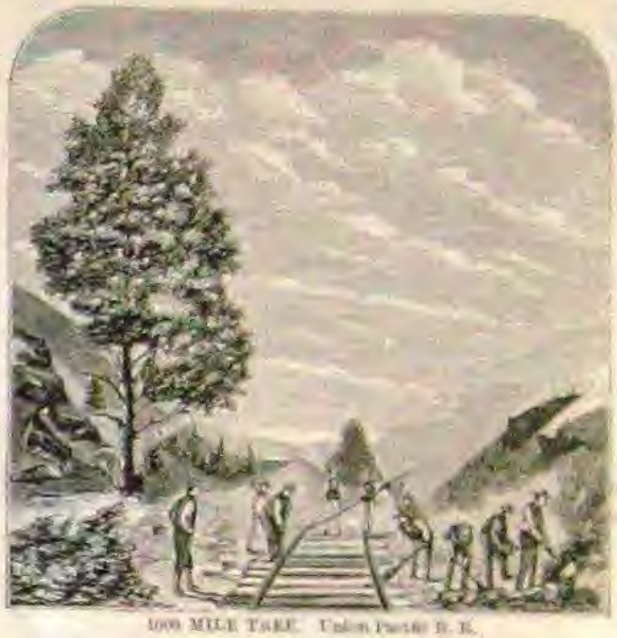
Deducting the sum of $25 per acre for the entire expense of care of vineyard and marketing crop, which includes everything connected with curing and packing the raisins, boxes, wrappers, etc., which is a liberal allowance, and the net returns show $63.74 per acre. Now, ordinary farming I have had no experience in, and therefore leave to those who have, the comparison of the above figures with the grain return per acre.

The above is highly satisfactory and encouraging from so young a vineyard, notwithstanding the reports of enormous yield in other localities already before the public. It is, however, an axiom, and needs only to be repeated to challenge the attention of the thoughtful, that forced over-production is a serious draft upon the vital energies of either animal or plant, and that vine life is as surely conditioned as that of man. Health and longevity of the vine, therefore, should be properly considered rather than an abnormal yield for a few years, and as the result, disease, premature decay, and death.

Time permitting, perhaps in your next issue the whole subject may receive its full share of attention.

O. H. CONGER.

Pasadena, April 25, 1880.



1000 MILE TREE. Union Pacific R. R.

GIANT'S CLUB, GREEN RIVER. Union Pacific R. R.

SEMI-TROPIC CALIFORNIA only $1.50 a year.

OVERLAND.

In no part of the world is travel made so easy and comfortable as on the Pacific Railroad. It is a constant delight, without fatigue or discomfort. One lives at home in the palace car, or even in the emigrant car—now a model of neatness, and arranged for comfort greatly excelling the first sleeping cars of the palace lines. For an entire week or more, as the train leisurely crosses the continent, the little section and berth allotted you, so neat and tidy, becomes your home. Here you sit and read, play games, indulge in social conversation and glee, with a constant changing panorama without the car of the grandest scenery in the world. With a company of friends to enjoy the beautiful and grand, the trip becomes an intense delight; the only regret is that your journey is not longer. But new delights await you in the Golden State, far grander than your fondest expectations.

HINTS.

Buy your tickets from a reliable ticket agent, check your baggage through, and on your arrival at Council Bluffs, the terminus of the Pacific road, re-check baggage, and be on hand early to secure a good location in the car as well as agreeable companions for the trip. Lunch is one of the indispensables; a lunch basket well provided, a pot to make coffee or tea, are good accommodations on an emigrant train for living. Milk can be had from peddlers at almost every station across the mountains.

We advise families coming to California to come by emigrant cars. They are comfortable in every respect, besides, the difference in the cost amounts to considerable for a large family.

The distance from Omaha to Los Angeles is 2304 miles; the fare $35, about 2¼ cents per mile, which is certainly as low a rate as any one could reasonably expect, much lower than many other roads for the same accommodations.

A delightful trip may be had by going direct to San Francisco, spending a day or so, and taking one of the *Pacific Mail Steamship Company's* elegant vessels for Los Angeles. The fare to San Francisco is $45, and fare on ship to Los Angeles $15, only five dollars more, giving you a sight of the Pacific metropolis, and a ride on an elegant steamer on the old Pacific Ocean.

Our next issue will contain a complete guide to the journey across the continent by rail.

TEA CULTURE ON THE DOONAGIREE TEA PLANTATION.

RANIKHET, INDIA.

ED. HORTICULTURIST: You will be glad to know that I am in love with my new home in the Himalayas. We are about 6,300 feet above the sea level, and surrounded with mountains very much higher, all densely timbered with evergreen oaks, pines, huge folious, rhododendron, arboreum, etc., etc. We have no cart roads here; everything has to be carried by men or ponies as far as Ranikhet, a distance of eighteen miles. From there to the plains the Government has made a good road, and bullock carts ply between the above-named station and Monadabad, the present railroad terminus. The tea-bush grows well here, especially where the soil is rich in vegetable matter, which has been accumulating for ages. We have three hundred acres planted, which is nearly all on rolling land or hill-sides; and to prevent the soil being washed away from the roots of the bushes it has been found necessary to terrace it. The rows are planted four, and some five, feet apart, each row having a terrace running across the hill which, with the assistance of numerous surface drains, prevent wash to a great extent during the heavy rains in summer. They commence about the middle of June, and continue till the middle of September. Last year over 100 inches of rain fell in those three months; but that amount of moisture, with the thermometer above 80 degrees, is what forces the successive young growths or flushes.

It is only the young and tender leaves that are made into tea; the old ones would not "twist" or roll as you see good tea, and they would remain a pale color unless artificially colored. Green and black teas are made from the same bushes; the difference obtained being from different manipulation of the leaves. The season here commences about the middle of April, and continues till the beginning of November. In picking the leaf the points of the young growing shoots are pinched off by the finger and thumb, generally taking with it a full-developed leaf, one partially so, and a bud undeveloped, leaving two or three leaves of the same growth to nourish the buds until they push, which they generally do in about ten days, and in four weeks are ready to pick again.

In making black tea it is necessary to wither the leaf until it becomes soft and limp; afterwards it is rolled. This operation is performed by each man taking a handful of leaf and rolling it upon a bamboo mat. There is a great knack in this, for he has to be careful in the first performance of it not to "break," the leaf and to retain it all under his hand in the several motions necessary to give it a twist. It is rolled until the juice is expressed and the leaf well twisted; he then forms it into a ball, pressing it as light as he can. These balls are collected by a man and carried to a separate room, where they are laid in rows on the floor, either as they are, or broken up and made to form long narrow ridges across the room. They are then covered with moist blankets and left for several hours to ferment. When it has got to the right stage, which is known by the smell and color of the leaf, it is taken out in rotation as it was put down, and put into a roasting-pan for a minute or so; a man moving it about to prevent burning. It is then thrown out on a table and rolled again, then spread thinly on mats and placed in the sun (if any) to become partially dried. Afterward it is put into trays and finished off over charcoal fires; then stored away, and afterwards sifted and sorted into the different classes or brands.

In making green tea the leaf must not be allowed to wither; it is immediately thrown into a roasting-pan heated to a high temperature, and moved about in it to prevent burning until the leaf is quite limp and wont break in rolling; it is then thrown on a table and well rolled, as in black tea, until the juice is expressed. It is then spread out thinly on mats in the sun to slightly dry; then collected, rolled again, and spread out thicker than before. The object is to get rid of as much moisture as possible, but it must not get too dry before it is put into the roasting-pans to finish off. These pans are made of thin cast-iron of a circular shape, and built into the wall with the fire directly under them; and so placed that a man, when standing, can conveniently work them. They are heated to a very high temperature, and great care is required to prevent burning. The tea has to be continually turned by the hands, "closing" it as it dries. This is a very hot operation on the hands, and lasts from three to four hours. It is afterward sifted into its different classes, as in black, but before it is ready for the market it has all to be hand-picked, removing any open yellow leaf or stems that may remain in it. The black tea also is all hand-picked.

We do a large trade in green tea, which is sent into Central Asia, where they drink only green tea. I think the American taste is inclined that way too; but the Japan tea that I have seen sold in Los Angeles gives only a faint idea of what green tea is.

We have over 400 people employed on the plantation, including men and boys; the latter are most active in picking leaf; the men use large hoes, like your irrigating ones, for cultivating the land, which we dig three times a year, and some of it oftener. Common labor is paid from 3 to 9 cents per day; they are engaged by the month, and some by the year. We are busy pruning the bushes, which we hope to finish by the middle of next month. At present we have about 18 inches of snow on the ground, which has put a stop to all out-door work for a time, but we like to see a good fall of snow, which acts as a good irrigation for the spring flushes.

JAMES CRAW.

THE receipts for wheat shipped from this State to Europe last month amounted to $1,944,683 in coin.

CALIFORNIA WINES.—WASHINGTON, April 18.—Yesterday's Baltimore *Sun* contains the following interesting editorial, based upon a statement received from its San Francisco correspondent, that a full cargo of California wine has been shipped to Germany: California wines are said to be exported at present to Europe in considerable quantities. Only a short time ago the delicate palates of European wine tasters revolted at the "earthy" flavor, the deficient bouquet and the heavy body of these wines, and they did not find much favor at either the Vienna or Paris Expositions. The managing committees of the London clubs, however, have discovered that California wines are as much better as they are purer than the spurious compounds of Cette with which the London, St. Petersburg and New York markets are flooded, and they do not contain near so much brandy as either port or sherry. In consequence of this, a good many orders are coming out from London dealers and clubs, and several well-stocked wine cellars have been bought out by English agents. A bark has just sailed for Germany laden to the gunwales with California wines for the German market, and it is believed that under French and German labels a great deal of California wine will be hereafter sold to European consumers. By and by, as has been the case with American beef, those consumers will find out what they are buying, and will prefer the cheap, pure wines from American vineyards to the manufactured stuffs "blended" in the Rhine and Garonne for people to drink who don't know what genuine wine is.

DOMESTIC RECIPES.—Oranges filled with jelly make a pretty appearance on a supper table, and are acceptable when much variety is desired. Take some very fine oranges, and with the point of a small knife cut from the top of each a round hole about the size of a shilling; then, with the small end of a tea or egg spoon, empty them entirely, taking care not to break the rinds. Throw these into cold water and make jelly of the juice, which must be well pressed from the pulp, and strained as clear as possible. Color one half a fine rose color with prepared cochineal, and leave the other very pale. When it is nearly cold drain and wipe the orange rinds, and fill them with alternate stripes of the two jellies. When they are perfectly cold cut them in quarters, and dispose them tastefully in a dish, with a few light branches of myrtle between them. Calf's feet, or any other variety of jelly, or different blancmanges, may be used at choice to fill the rinds; the colors, however, should contrast as much as possible.

A GENTLEMAN residing at San Gabriel has a beautiful ivy running over his house, the slip from which it grew having been obtained from Sunnyside, Washington Irving's home, and the original vine was reared from a slip brought from Kenilworth Castle, England, by the great author himself.

Poultry.

POULTRY RAISING.

ONE of the first requirements of profitable poultry raising is good stock. This can only be obtained from a reliable source. Attempting to breed good chickens from inferior fowls is only a waste of time. After cost of purchase, thoroughbred poultry, like other fine stock, is as cheap as mongrels or cross breeds, and are much more profitable and satisfactory in every way.

As to the different breeds, first consider the space and accommodations you have, and the kind of fowl best adapted to these conditions and to the climate, then suit the taste and object.

As egg producers the Brown Leghorns rank above all others. They are hardy, easily raised, and mature early. The pullets often lay at four months, and produce one hundred and sixty or more eggs during the year.

For any and all kinds of poultry, the house should be placed so as to avoid all cold winds and draughts, and at the same time furnished with abundant ventilation, for the lack of this essential is the cause of many diseased and "droopy" chicks.

The chicken breakfast should consist of warm, soft food. At night a good supper of cracked corn, or the whole grain should be given. With the soft food mix a teaspoonful of sulphur for every dozen fowls once in two weeks. Keep a good supply of broken oyster shells, gravel, and old mortar in the yards. Fowls kept in confinement should have a plentiful supply of green food daily, and fresh meat once or twice a week both raw and cooked. Keep by them plenty of pure fresh water. Clean the hen house thoroughly and often during warm weather. Whitewash everything every three months; *oftener* is better. With this attention good stock will pay a larger profit on the investment than in any other way.

CHAS. P. JULSON.

THE QUEEN

FASHIONABLE

BOOT & SHOE STORE,

104 Main Street,

Has the LARGEST and most SELECT STOCK at the LOWEST PRICES.

A. L. BANCROFT & Co.,

Booksellers,

Stationers,

Publishers,

Designers,

Engravers,

Printers,

Lithographers

—AND—

Binders.

A. L. BANCROFT & CO.,

721 MARKET STREET,

SAN FRANCISCO.

THE AUDIPHONE.

During the past few years, the world has been constantly startled by the announcement of new and wonderful discoveries. The inventive genius of man would seem to know no limit; it is persistently and steadily asserting the superiority of mind over matter. Following in rapid succession the telephone and the phonograph comes the Audiphone, an instrument possessing the property of gathering the faintest sounds (somewhat similar to a telephone diaphragm), and conveying them to the auditory nerve through the medium of the teeth. The external ear has nothing whatever to do in hearing with this curious device.

Fig. 2. The Audiphone in readiness; the proper position for hearing.

The Audiphone is the invention of Mr. Richard S. Rhodes, of Illinois. It is very simple in construction and without any mechanism; is shaped like a fan and can be used as such. The rubber plate is very flexible, and on the under side is a cord attached to the upper edge of the plate and passing through the handle, to which there is a clamp. By means of this cord the instrument is tuned like a violin, and the tension is regulated according to the degree of deafness, or the distance the sound has to travel. The upper edge of the Audiphone is placed against the upper teeth, and the surface responds to vibrations, just as the drum of the ear does. Sound is thus communicated to the brain and understood, as it produces the same vibrations on the auditory nerve as are produced through the medium of the ear. The deaf mute, of course, has to be taught what these vibrations are. When they can understand them, they can hear by this instrument, and can talk, as the Audiphone enables them to hear their own voice and to modulate it. Persons having false teeth, if they fit truly, can, notwithstanding, use it successfully.

Fig. 3. The Audiphone properly adjusted to the upper teeth, ready for use. (Side view.)

The Audiphone has been thoroughly tested by scientific men and others, and ample testimony is borne that the results are eminently satisfactory.

Mr. John B. Niles, as agent for the sale of Audiphones, will send the instrument to any address in the United States on receipt of price, $10.

Address him at Los Angeles, Cal.; or call upon him at the Poultry Ranch, on Washington street, near Main, and he will demonstrate to you how the dumb can speak and the deaf hear.

DON'T BUY A CULTIVATOR

Until you have seen

The Famous Spring-Tooth Harrow.

Anyone who has an orchard or vineyard can not afford to do without them. Are easy operate and be convinced before buying any other.

For descriptive circulars and price list address the manufacturers.

Correspondence solicited.

BATCHELOR & VAN GELDER,

908 K Street, Sacramento.

F. W. HANNA.

Spring St., Los Angeles.

Apiary Department.

CONDUCTED BY N. LEVERING.

QUEEN REARING.

THE apiarist who practices artificial swarming will find that if each new colony is provided with a fertile queen the work of the hive will be much facilitated. The following method is usually practiced: Rear from your most prolific and vigorous queens, as queens reared from strong colonies are usually the best layers. Make a new colony as heretofore directed, into which introduce the queen from which you wish to breed. (She may be introduced by means of a small wire cage.) Within twenty-four hours after the queen has been removed the bees will commence building queen cells, and will build from ten to twenty. In about ten days the first queen will emerge from her royal home. About the eighth day a number of nuclei, consisting of two or three frames, should be taken from strong colonies, with the young bees adhering, and placed in a hive, putting in a partition so as to confine the heat as much as possible. The number of nuclei thus formed should correspond with the number of good cells. These may be transferred to the nuclei by carefully cutting out and placing in the comb to which they are to be transferred, by cutting a hole corresponding with the cell, into which the cell must be pressed so as to hold without injuring it. Leave one cell in the hive, and, if cells enough, two. Two in each nucleus are better, as one might not come out. The bees will at once fasten in the comb, and about the tenth day the young queen will emerge. The one that first appears claims her priority to reign, and when she meets her sister a deadly combat ensues, the victor in the conflict remaining mistress of the hive. At the age of three or four days she goes out on her bridal tour, and in three or four days thereafter commences laying, after which she may be removed to a new colony by being placed in a small wire cage, one end of which may be closed up with wax, or a piece of the comb, pressed in with the finger. Place the cage in the middle of the hive, between the frames, with the waxed end down. Let it remain twenty-four hours or more; if the bees accept of her they will cluster thickly round the cage. When they do this the queen may be liberated by removing the wax, if the bees do not cut it out. The nuclei may then be collected into one colony and given a queen.

ORANGE SCALE BUG.

A CRUMB OF COMFORT.

THOUGH not largely engaged in orange culture, I have taken considerable interest and some part in the discussion of the scale bug question. It was an article of mine in the HORTICULTURIST which first drew attention to the use of kerosene as a scale bug destroyer, detailing some experiments I had made with apparent success. The scale bugs, however, returned again, and were about as bad as before. My trees were small, and I had only about 200, and I could easily go over them, but I said to myself: "What shall I do when these trees are large, like Wolfskill's and Willson's?" While I thought on these accumulating difficulties a new remedy appeared on the stage, which has relieved the matter not a little, and I offer it as a *crumb of comfort* to our brethren in Los Angeles and San Diego counties. I observed that a swarm of very small flies seemed wonderfully interested in something they found in my orange trees. When I shook the tree thousands swarmed out. They were particularly numerous in trees where the scale bug most abounded. I did not notice the havoc they were making with the scale bug till I observed, some weeks after, that the scale bugs were nearly all destroyed. One of my neighbors called on me, and said the scale bugs had left all his trees, and he was convinced they had been killed by a small fly, no larger than those which are hatched from the eggs we often see on mustard stalks. He had observed the same swarms I had seen. So far as I can learn, they have visited all the orange trees in this part of Ventura county, and delivered them from the common enemy. I regret that I did not so thoroughly examine this species of minute flies as to describe it. But I write to console the afflicted, with the hope that a similar visitation may be in store for them.

One thing more on the *insect* question. Will the woolly aphis injure materially *large trees?* I think not. I have had them on trees from six years old to twenty, and the trees bore fruit, and grew about as well as those not infested with them. I think the time when they affect trees disastrously is while they are young. We ought to kill them whenever we find them, and for this purpose kerosene is far the best thing. But what I mean is, if still they infest the roots of good sized trees don't be scared about it, for the tree will defend itself, or mind as little about it as the ox did the fly on his horn—did not know it was there. S. BRISTOL.

SAN BUENAVENTURA, March 16, 1880.

A PRE-EMPTOR may select 160 acres of public land, whether held at $1.25 or $2.50 per acre (certain classes of land are excepted from pre-emption by the law), and enter it at the land-office of the district. He must "inhabit and improve the same," and erect a dwelling-house thereon. Then, within twelve months he must pay $1.25 per acre for the land and receive his patent. Under the Homestead Act the individual enters 160 acres of land at $1.25 per acre, or 80 acres at $2.50 per acre, and after actually residing on and cultivating it for five years, he is entitled to a patent for the same. Soldiers and sailors in the late war may have their time of service deducted from this five years' residence. Thus, a man who served for three years in the army or navy may claim his patent after two years' residence.

CALIFORNIA'S NATURAL WEALTH.

THE *New York Herald*, in an article on California, says: An exportation which promises some day to be extensive, was recently begun with sending a ship-load of native wines to Germany, and thus the banks of the Neckar are to be rivaled in their choicest productions by the sunny slopes of the Pacific shore. The attention paid to live stock and wool has also been stimulated by a firm and increasing demand, with the natural accompaniment of good prices. These facts, at a time when the artificial industries of California are under a grievous cloud, afford a gleam of hope for the future. It is as a pastural and agricultural State that she is finally to stand as one of the first of the Union, and the growth of these solid interests implies a lessening of the relative importance of the shifting, agitating and speculating masses, which have contributed much to her activity, but are now her bane. It is not probable that the crops in all other parts of the country will in 1880 be so plenteous as they were in 1879. If the prognostications regarding California, therefore, hold good, and they seem to be well founded, she will reap the chief advantage of a more eager demand for her principal productions, and will speedily attract to herself, through this circumstance alone, an increased immigration of the kind that can benefit her most. Her agricultural and pastural resources are capable of much further development.

THE OLD-FASHIONED GIRL.—She flourished thirty or forty years ago. She was a little girl until she was fifteen. She used to help her mother wash the dishes and keep the kitchen tidy, and she had an ambition to make pies so nicely that papa could not tell the difference between them and mamma's, and yet she could fry griddle-cakes at ten years of age, and darn her own stockings before she was twelve, to say nothing of knitting them herself.

She never said "I can't," and "I don't want to," to her mother when asked to leave her play and run up stairs or down on an errand, because she had not been brought up in that way. Obedience was a cardinal virtue in the old-fashioned little girl.

She rose in the morning when she was called, and went out into the garden and saw the dew on the grass, and if she lived in the country she fed the chickens and hunted up the eggs for breakfast.

She did not think she knew as much as mother, and that her judgment was as good as her grandmother's.

And if there be an old-fashioned little girl in the world to-day, may heaven bless her and keep her, and raise up others like her.

"Oh the new wine, the new wine,
It tasteth like the old;
The heart is all athirst again,
The drops are all like gold.
We thought the cup was broken,
We thought the tale was told;
But the new wine, the new wine,
It tasteth like the old."

If you want to see a fine stock of Farm and Spring Wagons, call on Rees & Wirsching, at 35 and 37 Los Angeles St. (Page & Gravel's old stand). They also make a specialty of Carriage Painting.

DRUGS AND CHEMICALS.

The largest stock of Drugs, Chemicals, Patent Medicines, Perfumeries, Toilet articles in Southern California, at the very lowest possible prices.

Agents for Humphrey's Homeopathic Specifics and Holman's Liver Pad.

PRESCRIPTIONS A SPECIALTY.

Put up at all hours of the day and night.

HEINZEMAN & ELLIS,
72 Main Street,
LOS ANGELES, CAL.

"A PENNY SAVED IS EQUAL TO TWO EARNED."

Buy Your

PICTURES and FRAMES

—OF—

J. A. VALDER.

38 Spring St, Strelitz Block,

At Wholesale Prices, and save money. Picture frames made to order. Box frames made for Moss, Shell, Worsted and Wax-work.

R. M. WIDNEY,
Attorney at Law.

LOS ANGELES,
California.

A. BRUNSON. G. WILEY WELLS.

BRUNSON & WELLS,

Attorneys and Counsellors at Law.

Nos. 11, 12, 14, 16 and 17, Baker Block.

Will practice in the Supreme Court of this state, and of the United States, and attend to all business before the Departments at Washington, D. C.

V. PONET. D. F. ORR.

PONET & ORR

GENERAL FURNISHING UNDERTAKERS

No. 66 Main St.

Agents for Raymon's Metallic Burial Cases and Caskets of New York. Undertaker's goods wholesale and retail. Particular attention given to embalming bodies for shipping East.

E. GERMAIN,
WHOLESALE COMMISSION MERCHANT,

For the sale and purchase of all kinds of

Produce and Merchandise.

OFFICE AND WAREHOUSE:

28 Main Street, Los Angeles, Cal.

Consignments of every description of Country Produce solicited. Advances made on approved shipments. Immediate orders at lowest prices for Green and Dried Fruits, Dairy Produce, Groceries, Provisions, Wines and Brandies, Honey, and everything produced in this market.

Sole Agent for Star Dairy Cheese.

H. SLOTTERBECK & CO.,

Importers of, and Dealers in

GUNS, RIFLES, PISTOLS, CUTLERY

And Sporting Goods of Every Description.

Repairing Carefully Done.

75 MAIN STREET,

P. O. BOX, 1128. LOS ANGELES, CAL.

LOS ANGELES

Business College.

PRACTICAL BUSINESS TRAINING SCHOOL FOR YOUNG MEN AND WOMEN.

ROOMS 1 and 4,

ODD FELLOWS' BUILDING,

Over Post-office.

Sessions day and evening. Students may enter any day in the month. For particulars, apply to

C. W. LA PETRA,
Business Manager.

The Cheapest Route to Southern California

Is by the Steamers of the

Pacific Coast Steamship Co.

—FROM—

SAN FRANCISCO.

Tourists and others for San Luis Obispo, Santa Barbara, Los Angeles, San Diego and all places in Southern California should take tickets as above.

The opportunity of visiting San Francisco the metropolis of the Pacific Slope, of passing through the "Golden Gate," and of enjoying a short and invigorating voyage on the Grand Pacific Ocean should be availed of, especially as the expense by this route is less than by any other.

GOODALL, PERKINS & CO.,
GENERAL AGENTS.
SAN FRANCISCO

Ticket Office,
No. 214 Montgomery St.

COSMOPOLITAN HOTEL.

The only

Reliable First Class Hotel

In Los Angeles.

The Finest Hotel in Southern California.

HAMMEL & DENKER, Proprs.

THIS NEW AND ELEGANT HOTEL IS SITUATED in the centre of the city of Los Angeles, and contains nearly a hundred spacious and airy rooms, newly furnished in the most comfortable style. Rooms in suite for families and parties on every floor, with hot and cold baths.

The Table

Will always be furnished with the best supplies that can be procured in the market.

A Free Coach

Is always on hand to carry guests to the house.

No pains will be spared to make guests comfortable in every way.

A large reading room open night and day.

HENRY HAMMEL,
A. H. DENKER.

THOROUGHBRED POULTRY.

LARGEST STOCK OF

IMPORTED FOWL

ON THE PACIFIC COAST.

Bone Meal and Poultry Supplies

Always on Hand.

General Pacific Coast Agent for the AMERICAN POULTRY FOOD. It will make your hens lay, and prevent disease. For raising young chicks it is almost indispensable.

My yards contain choice strains of the leading varieties, including Langshans, Plymouth Rocks, White Dorks, etc.

Eggs for hatching packed to go any distance. Prices always reasonable. Fine arrival of fowls and eggs guaranteed.

Importer and breeder of the Improved Short Nose, Hook-Faced BERKSHIRES. Also, Magic Poland-China Pigs.

Letters of inquiry, inclosing stamp, cheerfully answered. Address

WILLIAM NILES,
Importer and Breeder,

P. O. Box 330. Los Angeles, Cal.

LANDS FOR SALE
BY

A. F. WHITE & CO.,
REAL ESTATE AGENTS,

No. 14 SPRING ST., Los Angeles, Cal.

We respectfully ask the readers of this Journal to note the following rare bargains in Real Estate. We have a large amount upon our books for sale, and all special inquiries addressed to us will be promptly answered.

160 ACRES of highly improved farm land, five miles from the Court House. Large two-story dwelling house, and tenant house which can be used for dairy purposes. Barns, sheds, and other out-buildings. Two good wells, pump, and wind-mill. Large reservoir. Place all fenced with board fence. Plenty of fruit for family use. This is a fine dairy farm. PRICE, $9000.

150 ACRES at Pasadena, all tillable. Good wheat or barley land; no finer in the country for grapes or olives, neither of which require irrigation. Excellently located for resort cottages, it having a beautiful sunny slope. No improvements. PRICE, $15 per acre.

30 ACRES on Washington street. Beautiful vineyard or fruit land. Elegant view of the valley. Splendid place for a business man to build a home. Very choice bargain. PRICE, $1100

320 ACRES farm land in the San Jacinto Valley, 12 miles from R. R. Station, in rapidly improving country. Well adapted to fruit and vines as well as grain. Water in great abundance 14 to 18 feet from surface, no better farm land in the state. PRICE, $2000.

THE

San Francisco Bulletin,

THE

Leading Evening Newspaper West of the Rocky Mountains.

SUBSCRIPTION RATES.

Daily Bulletin, one year	$12 00
Weekly and Friday Bulletin (making together a complete Semi-Weekly)	3 00
Weekly alone, one year	2 50

Parts of a year in proportion.

FREE SEED DISTRIBUTION.

Each subscriber will be presented with several varieties of Rare and Valuable TREE, VEGETABLE and FLOWER SEEDS equal in value to the subscription price of the paper.

☞ Send for Sample Copy, giving full particulars.

Remittances by Draft, Postoffice Order, Wells, Fargo & Co's Express, and Registered Letter, at our risk.

Address

S. F. BULLETIN CO.,
San Francisco, Cal.

D. M. GRAHAM,

Land and Loan Broker,

Is prepared to place loans on real estate security at current rates of interest without delay.

Rooms 7 and 8, Commercial Bank Building, Los Angeles, California.

The Pasadena Land-office.

The climate, soil, water, system, beautiful scenery, special and general advantages of Pasadena are now too well and widely known to require any puffing at my hands. See and you will believe. I can offer you, in all parts of the country, your own kind of land, at your own price, from $5 per acre, upward; and I will take pleasure in showing you about the country.

D. M. GRAHAM.

FIRST-CLASS

NURSERY STOCK!

We offer to the public a Large and Choice Selection of everything usually to be found in a nursery, at

Bed Rock Prices.

In preparing our stock for the market we have had the reputation of our nursery in view, as we are one of the permanent institutions of Southern California. We expect to build up a future business on the merits of our goods. We invite correspondence, and will send catalogue free to any address.

FISHER, RICHARDSON & CO.,

Los Angeles

NURSERY: Cor. Washington and St. Pedro Sts.
YARD: Spring St., opposite Postoffice.

F. P. RAMIREZ,

Attorney at Law,

72 TEMPLE BLOCK, Los Angeles.

WATERMAN'S

HOT MINERAL SPRINGS.

This Delightful Resort is now open to the public. It is situated in the foothills, six miles from San Bernardino, California. Altitude, 1700 feet above the sea level, as given by Lieut. Wheeler's Engineering Corps. The climate is highly recommended for

Asthma, Throat and Lung Diseases.

And the waters are good for Dyspepsia, Rheumatism, and kindred diseases. For further particulars, address

R. W. WATERMAN,
Proprietor.

PURE

And Unadulterated Candies, made fresh every day at the

LOS ANGELES CANDY WORKS,

Spring Street, Los Angeles.

A pure, healthy article of candy is seldom to be found. This house pride themselves on the purity of their stock. Ladies' lunch-room attached.

SPLENDID **FLOWERS**

Over 1200 distinct varieties. All **strong** Plants, each labeled, delivered safely by mail. The **largest assortment. Low prices.** In business for **20 years.** *Guarantee satisfaction.* Stock comprises *all desirable varieties.* Only mature plants sent. Our new **Illustrated Hand-Book,** sent free, contains name and description of each plant, with instructions for successful cultivation. *Do not purchase Plants elsewhere before sending for our new* **HAND-BOOK** Every lover of *flowers* should have it. *Every buyer of cheap plants* should have it. Every one wanting *new* and *choice plants* should send for our *Hand-Book.*

HOOPES, BROTHER & THOMAS,
CHERRY HILL NURSERIES, West Chester, Pa.

SAWING THE LOG.

THE GREAT SUCCESS OF THE WONDERFUL IMPROVED

Labor Saving **RIDING SAW MACHINE** is fully demonstrated by the number in use and the present demand for them. It saws Logs of any size. **One man** can saw **more** logs or cord wood in one day and **easier** than two men can the old way. It will saw a two foot log in three minutes. **Every Farmer needs one.** Township agents wanted. Send for Illustrated Circular and Terms.

Address W. W. BOSTWICK & CO.,
178 Elm St., Cincinnati, O.

GIVEN AWAY

New Scarlet Striped Geranium

NEW LIFE!

By mail paid. To any one sending us **$1.25** for 5 plants of this Geranium, we will *add a plant gratis.* A single plant mailed free for **40c.** ☞ Our Catalogue containing Colored Plate of above Geranium **Free.** We also send by mail, prepaid, **13 Ever-Blooming Roses,** flowering size, labeled, for **$1.25.**

INNISFALLEN GREENHOUSES, Springfield, O.

INSURANCE AGENCY.

A. HERDMAN,

Ducommun Building, Los Angeles.

FIRE—LIFE—ACCIDENT.

FIRE INSURANCE COMPANIES.—**Imperial** of London; **London** of London; **Northern** of London; **Queen** of Liverpool; **Western** of Toronto; **Hartford** of Hartford.

LIFE AND ACCIDENT.—**The Travellers' Life and Accident Ins. Co.** of Hartford.

All forms of Life and Accident Policies issued; also, Railroad Accident Policies for 25 cents a day, insuring $3000 in case of death, and $15 a week in case of accident. Attention is called to the combined life and accident policy of this company.

DO YOU LOVE HONEY?

A FEW stocks of Bees will supply your table with this delicious and healthful sweet and save you many a bill for sugar and syrups.

We have just completed an arrangement to furnish our readers the Thirty-two Page Monthly BEE-KEEPERS' MAGAZINE at **Only One Dollar a Year** (former price, $1.50).

It gives information which enables *any one* to keep Bees *without being stung,* and to take *large quantities of nice Honey,* when in the ordinary way very little would be obtained. It illustrates, describes and gives the price of all kinds of Bees, Queens, Hives, Extractors, Artificial Honey Comb, all the latest books on Bees, etc., etc., etc., *just what beginners need.* Send the money direct to us, and we will see that you get the MAGAZINE promptly and postpaid.

SUB-IRRIGATION!

The attention of Orchardists, and those planting Orange or Lemon Groves, Small Fruits, etc., is invited to our system of Sub-Irrigation as practically tested in this city, by which fully three-fourths the water ordinarily used and nearly all the labor of irrigation is saved, the deep rooting and healthy growth of trees insured, and the ground prevented from baking. The manufacture of Reservoirs, Irrigating, Water and Sewer Pipe a specialty.

ASBESTINE STONE CO.

A Valuable Industry. — **The Los Angeles** Woolen Mills, located on Pearl street in this city, are at present doing a fair business and deserves the patronate of all of our merchants. Through the curtesy of the proprietors we recently inspected the building, the machinery and the goods manufactured, and we feel safe in saying that of better quality of goods of the same style is not imported into Los Angeles. The mills are turning out daily a fine stock of blankets, flannels, cashmeres and tweeds, and we are pleased to add are receiving large orders from the principal towns of Arizona. All industries of this kind are of incalculable value to our city and county, and should be hastily enlarged by our municipal authorities and good citizens generally.

The old adage, "the best is always the cheapest," will apply to no article with greater force than to Seeds. Nothing is quite so worthless as poor Seeds. D. M. FERRY & Co., of Detroit, Mich., seem to be one of the very few firms engaged in the Seed business who have fully realized the importance of putting up and selling only the freshest and best of all varieties of Seeds; and as a legitimate result their brand of Seeds has become exceedingly popular all over the land. We take pleasure in referring to their advertisement in our columns, and would advise all our readers who will be likely to require Seeds, to send and obtain their beautiful catalogue giving prices, instructions for planting, etc.

THE CHEAPEST

—AND—

BEST

GROCERIES

—AT—

GEO. D. ROWANS,

Baker Block,

Los Angeles, Cal.

LOS ANGELES ACADEMY.

THE courses of study embrace the Regular Academic Course; Commercial and Business Course; Normal School Course; Latin, French, German and Spanish Languages; Vocal and Instrumental Music, Painting and Drawing.

O. S. FRAMBES, Principal.
S. E. FRAMBES, Preceptress.

Location: Main Street, bet. Third and Fourth.

JOHN WAUGAMAN'S GOLD DRY WASHER.

Factory and Exhibition Rooms, Requena St.

THE only successful Dry Washer ever invented. Capacity, twenty tons in ten hours, with a saving of *ninety per cent.* of all the gold in the gravel that is milled. The machine weighs 150 pounds, and will be made to order promptly. Placer miners will do well to call and examine this wonderful machine. tf

---

CONGRESS HALL
Oyster Saloon and Restaurant,

Corner of Main and Requena Streets,

OPPOSITE THE U. S. HOTEL.

THIS popular resort has been established since 1872, and has at all times been considered one of the most complete establishments on the coast where ladies and gentlemen can dine and receive the best of attention. Eastern, California and Puget Sound Oysters are served in all styles, in the most faultless manner. Oysters sold to dealers, wholesale, at San Francisco prices.

JOE BAYER, Proprietor.

L. LICHTENBERGER,

Manufacturer of all kinds of

WAGONS, CARRIAGES, ETC.,

Main Street,
Los Angeles, Cal.

The best kind of work guaranteed.

DILLON & KENEALY,

DEALERS IN

Staple and Fancy Dry Goods.

All the latest novelties and new styles received weekly.

We invite you to call and inspect our goods and prices.

MAIN STREET,
Los Angeles, Cal.

PURE BRED BROWN LEGHORNS.

Eggs for hatching carefully packed to go any distance.

$1.50 for 13; $2.50 for 26.

LIGHT BRAHMAS, BUFF COCHINS, LANGSHANS AND W. F. BLACK SPANISH.

A limited number of Eggs, from *Extra Choice Fowls*, at reasonable rates. All eggs warranted fresh, fertile and true to name.

CHAS. F. JILLSON,
Corner Fourth and Mill Sts. (near Woolen Mill.)

Orders may be left with me at DOYLE & BRADLEY'S, 27 Main Street.

JOHN C. OLMSTED,

Dealer in

BOOKS, STATIONERY,

AND FANCY GOODS,

No. 36 Main Street, (Op. Cosmopolitan Hotel.)

LOS ANGELES, CAL.

BRANCH STORE AT SANTA MONICA.

WALTER S. MAXWELL,

COMMISSION MERCHANT,

AND DEALER IN

Wool, Grain and Live Stock,

36 Spring Street,
Los Angeles, Cal.

THE PLUMMER
Patent Fruit and Vegetable Drier.

Reasons why it is the Best.

1. Most durable.
2. Simple to operate.
3. Most economical in fuel.
4. Fruits and vegetables dried by it command at highest market price.
5. Flavor, color and condition of fruit unrivaled.
6. More fruit can be dried by the Plummer in proportion to its cost than by any other.

An evidence of the superiority of the Plummer is seen in the fact that it received the highest award and medal at the Paris Exposition, 1878, Centennial medal, Philadelphia, 1876; three gold medals at the State Agricultural Society, Oregon, (one each year since patented) and silver medal for dried potatoes. And silver medal awarded by the Southern California Horticultural Society, 1879. Also medals and diplomas of highest award at numerous other places exhibited.

Over 1000 of these Driers already in operation on the Pacific slope since patented in Oregon three years ago.

For price, descriptive catalogue of Family and Factory Drier, address,

OGILVIE & EAMS,
Box 128. Los Angeles, Cal.

Cash Dry Goods House,

Your Patronage Solicited.

Good Goods.
Uniformly Low Prices.
Call and Examine.

—Also—

Men's Furnishing Goods.

Special Inducements in

Linen Bosom Shirts and Underwear.

Always glad to show goods.
Respectfully,

B. F. COULTER,
No. 32 Baker Block, Los Angeles, Cal.

Harper, Moore & Co.,

110 Main Street, Los Angeles.

Call on us for

Hardware, Tinware, Stoves,
Agricultural Implements,

And

Averill Mixed Paints.

Plumbing, Tinning and Gas Fitting done on short Notice.

Well and Water pipe always on hand.

Give us a call and we will save you money.
Respectfully, HARPER, MOORE & CO.

E. NAUD. G. G. WEISE.

E. NAUD & CO.

WINE GROWERS

—AND—

Wholesale Liquor Dealers.

California Grape Brandy in Bond.

Sole agents for the Whiskies of G. H. Chase & Co., Louisville, Ky.

G. W. MORGAN,
REAL ESTATE AGENT.

Room 11 (Up stairs),
POST-OFFICE BLOCK.
LOS ANGELES CITY.

The oldest Real Estate Office in the city. Furnish horse and carriage and show property.

Markets.

Retail Groceries, Etc.

Butter, Cali.				Rice	9	@	
Choice, lb	20	@	30	Yeast Pwdr, doz	1 50	@	2 00
Cheese	15	@	20	Can'd Oysters,			
Eastern	20	@	25	doz	1 75	@	3 50
Lard, Cal	8	@	10	Syrup, SF Gd'n	80	@	1 00
Eastern	15	@	20	Dr'd Apples, lb		@	15
Flour, ex. fam				Ger Prunes	19½	@	
bbl	6 20	@	7 50	Figs, Cal		@	10
Capitol Mills,				Peaches	10	@	20
sewt	3 20	@		Oils, Kerosene	25	@	50
Pion'r ½ cwt	2 60	@	2 60	Honey	15	@	20
Superfine, do		@	2 70	Do	10	@	12
Graham 50-lb				Extracted	8	@	12½
sack		@	1 45	Bacon, Cal	8	@	10
Buckwheat		@	45	Hams, do	9	@	12½
Oatmeal Cal, 10-				Eastern	15	@	17
lb sacks		@	55	Potatoes, cil	90	@	
Eastern do		@	75	Onions, cil		@	4 00
Corn Meal, lb	1c	@	1½c	Beans	1 80	@	2 50
Sugar, w. crshd	12	@		Butter	1 40	@	1 50
Light Brown	9	@	10	Lima	6 00	@	6 00
Coffee, Green	20	@	30	Fresh Beef	5½	@	6½
Tea, Fine Bl'k	50	@	1 00	Round steak	00	@	8½
Finest Jap'n	30	@	80	Sirloin	10	@	12
Candles, Admte	15	@	25	Porterhouse	12½	@	15
Soap, Cal	3	@	10	Chickens	3½	@	4½

SEMI-TROPICS.

Dr. Dodge, a physician from Philadelphia, lately arrived, is so pleased with our climate and surroundings that he has decided to locate in this city. He thinks many invalids from his former home will visit us this Fall.

Mrs. J. S. Carr, formerly Assistant Superintendent of Public Instruction in this State, is the fortunate possessor of about fifty acres of land in Pasadena, where she is making one of the most attractive homes in Southern California, and at the same time rendering a signal benefit to our section. Her collection of foreign and native trees will probably only be surpassed by the arboretum of Governor Stanford in San Mateo county, and comprises about five hundred varieties of fruit, shade and ornamental trees, besides many useful and curious specimens obtained from every quarter of the globe. By means of her experiments, we may be able to introduce many new and valuable species of the vegetable kingdom into Southern California, and thus add largely to our already almost boundless resources.

Mr. E. Pollard, of the Alhambra Tract, has a beautiful and thriving young orchard, which promises to yield him a handsome income in the future. He has also a fine nursery stock, the orange trees being principally budded from the Washington Navel, a variety which has been pronounced one of the best by the highest citrus authorities. It is an early and very prolific bearer, and the fruit is large, sweet and of excellent flavor. Mr. Pollard is confident that in a few years no other variety of the budded orange will be more sought after, and the appearance of his trees certainly justify the belief that it is a very desirable acquisition.

Mr. C. W. Clark, of East Los Angeles, informs us that that suburb is a favorite place of residence for our people, and there are but few vacant houses in the neighborhood. The principal advantages are its healthy location, fertile soil and convenient situation.

The culture of the castor bean is attracting considerable attention in Los Angeles county this year, and a larger area of this valuable product has been planted than ever before. The Azusa and Los Nietos farmers are giving special attention to the industry, and are confident that it will give them better returns than any other crop they can harvest.

It is impossible to find in the United States a more delightful climate, a more fertile soil, or a region in which a living from the land can be made with such comparative ease as in Southern California. But because nature has done much, some of our settlers seem to think they must do nothing, and act accordingly. They fail to cultivate their orchards, improve and and beautify their homes, take no papers, because "times are so hard," and spend their days in denouncing the country and their luck. But such people would be dissatisfied in the Garden of Eden, and we regret that they are not compelled by law to take up their abode on some of the rocky farms of New England and the North-west, where they would indeed have to earn their bread by the "sweat of the brow."

THE BUSINESS COLLEGE.

Though in its infancy, this institution has a fair beginning, and by proper encouragement, has the prospect of achieving a great success. Certainly there is nothing of so universal importance as education, and especially that which is calculated to prepare young men and women for the active duties of life.

Will be mailed FREE to all applicants, and to customers without ordering it. It contains four colored plates, 300 engravings, about 200 pages, and full descriptions, prices and directions for planting that variety of Vegetable and Flower Seeds, Plants, Bulbs, etc. It is FREE to all. Send for it. Address,
D. M. FERRY & CO., Detroit, Mich.

NOEL & FELT,

DEALERS IN

Imported and Domestic

LIQUORS AND CIGARS,

114 Main Street,

Los Angeles.

Agents for Noble Whiskey.

THE DEAF HEAR

THROUGH THE TEETH!

PERFECTLY, all Ordinary Conversation, Lectures, Concerts, etc., by NEW Cheaper, Scientific Invention, THE DENTAPHONE. Deaf—Use all the Deaf and Dumb—Use Best Time Already. Dr. Chauncey Blanchard, says, it is. It displaces all Ear-trumpets. Size of an ordinary Watch. Send for our FREE pamphlet. Address AMERICAN DENTAPHONE CO., 263 Vine St., Cincinnati, Ohio.

R. G. CUNNINGHAM,

DENTIST,

74 Main Street.

Lauffranco's Building. Los Angeles, Cal.

S. C. HUBBELL,

ATTORNEY AT LAW,

Rooms Nos. 3 & 4, Ducommun's Block,

Cor. Main and Commercial Streets,

LOS ANGELES, CALIFORNIA.

FOR SALE.

20 ACRES in Arlington Tract, Riverside, San Bernardino Co., Cal. Four-room dwelling, 250 orange and 50 deciduous trees. Price, $1800.

GEO. M. FRINK,

Riverside, Cal.

RIVERSIDE HOTEL

For Sale!

Furnished; doing a good business; 2½ acres; 125 orange trees, grapes and plenty of fruit. Terms easy. Satisfactory reasons. Investigation solicited. Address

WM CRAIG,

Riverside, Cal.

WALTER S. MOORE,

FIRE INSURANCE.

Policies written here on

BUILDINGS OF ALL KINDS, GRAIN AND HAY.

Special rates on growing crops.

36 SPRING STREET.

Central Block, Los Angeles, Cal.

R. J. TRUMBULL. CHAS. W. DERBY.

R. J. TRUMBULL & CO.,

Wholesale and Retail Dealers in

Seeds, Trees, Bulbs, PLANTS,

FANCY POTTERY, ANTIQUE WARE, RUSTIC BASKETS, GARDEN TRELLISES, GARDEN HARDWARE, LAWN MOWERS, ETC., ETC.,

Nos. 419 and 421 Sansome Street, SAN FRANCISCO.

Catalogues on application.

RIVERSIDE LANDS!

The Riverside Land and Irrigating Company, of San Bernardino County, offer

15,000 ACRES!

Of the most desirable land in Southern California for Semi-Tropical

FRUIT GROWING

AND

Beautiful and Healthful Homes.

These lands are located in the Santa Ana Valley, San Bernardino County, 50 miles southeast of Los Angeles, and 7 miles south of Colton, a station of the Southern Pacific Railroad.

Twenty-eight miles of irrigating canals are now completed, and there is abundant water in the dryest seasons to irrigate all the lands offered by the Company. About 1,000 inhabitants are now in the Colony—enterprising and intelligent people. We have good schools, four church organizations, daily mail, telegraph line, newspaper, etc. Lands are offered at moderate prices and on liberal terms, and no lands are sold but to actual settlers. I invite all seeking homes in this portion of the State to call and see us before purchasing elsewhere. Every facility will be afforded for the examining of the lands offered.

S. C. EVANS, President R. L. & I. Co.

LAKE VINEYARD LAND AND WATER ASSOCIATION

This Association is now offering for sale on easy terms some of the finest lands in California. They are situated about 1000 feet above the sea, in the rich and beautiful valley of San Gabriel, protected on the north by the Sierra Madre Mountains, while on the west a range of hills and mountains tempers the chill of the sea breeze as it passes over them for forty miles before reaching this locality. This combination of advantages makes it a delightful residence for invalids, while the lands produce all the grains and fruits of the temperate zone, and many of the products of the tropics. The land is supplied from large reservoirs fed by mountain springs, and carried in pipes along all the avenues of the tract which is divided into ten-acre lots, with water rights for every lot. This property is but seven miles from Los Angeles, and near the line of the Southern Pacific Railroad. For prices and full details, address

F. W. WOOD,

Secretary L. V. L. & W. A.

WM. H. PERRY. W. W. WOODWORTH. S. H. MOTT.

PERRY, WOODWORTH & CO.,

STEAM

Sawing, Planing & Molding Mills,

At their Lumber Yards,

76 Commercial St., Los Angeles Cal.

Dealers in

Lumber of all kinds, Plaster, Hair, etc.

Also manufacturers of

Doors, Sash, Blinds, Moldings and cut and turned work of all descriptions.

Dotter & Bradley,

Dealers in

Furniture, Carpets,

Wall Paper, etc.

80, 82, 84 Main Street,

Los Angeles, Cal.

Largest Stock

And

Lowest Prices.

Phineas Banning,

Forwarding

—AND—

Commission Agent,

Wilmington, Los Angeles Co., Cal.

Vessels Towed,

Goods Lightered.

Lumber and Grain stored with accustomed promptness.

BANKING HOUSES.

LOS ANGELES COUNTY BANK,

MAIN STREET,

LOS ANGELES, CAL.

Capital Stock (paid up).....$300,000

J. S. SLAUSON.....President
R. S. BAKER.....Vice-President
J. M. ELLIOTT.....Cashier

DIRECTORS.

J. S. SLAUSON, A. W. BOWMAN,
V. A. HOOVER, ROBERT S. BAKER,
J. BURNS, GEO. W. PEASCOTT.

Receive Savings Bank Deposits.

Buy and sell exchange on San Francisco, New York, London, Paris, Berlin and Frankfort.

Buy exchange on all parts of the United States and Europe.

Receive money on open account and Certificate of deposit, and do a general Banking and Exchange business.

COMMERCIAL BANK

OF LOS ANGELES.

Authorized Capital $300,000

E. HOLLENBECK.....President
E. P. SPENCE.....Cashier

DIRECTORS.

A. H. WILCOX, W. WOODWORTH,
S. H. MOTT, H. MARCHY,
I. LANKERSHIM, O. S. WITHERBY,
E. P. SPENCE, J. E. HOLLENBECK.

This Bank is prepared to receive deposits on open account, issue Certificates of Deposit, and transact a general Banking Business.

Collections made and proceeds remitted at current rates of exchange.

FARMERS' & MERCHANTS' BANK

OF LOS ANGELES.

CAPITAL.....$500,000

ISAIAS W. HELLMAN.....President
L. C. GOODWIN.....Vice-President
JOHN MILNER.....Secretary

BOARD OF DIRECTORS.

ISAIAS W. HELLMAN, JOHN S. GRIFFIN,
O. W. CHILDS, C. E. FRANK,
L. C. GOODWIN, A. GRAMMIS,
FRED. GARNER, DON. ARNOLD,
JOHN MASCARO.

Exchange for sale on NEW YORK, LONDON, DUBLIN, FRANKFORT, PARIS, BERLIN, AND HAMBURG.

Receive Deposits and Issue their Certificates.

Buy and sell LEGAL TENDERS, GOVERNMENT, STATE, COUNTY AND CITY BONDS.

Will also pay the highest price for gold and silver bullion.

"ABEL STEARNS RANCHOS."

THE

Center of Los Angeles Valley,

Los Angeles Co., Cal.

Embracing Anaheim, Westminster, Orfanta, Garden Grove, Etc.

80,000 Acres for Sale

WILL BE

Sold in Tracts to Suit,

AT

Very Low Prices, and on Easy Terms and Low Rate of Interest.

Hundreds of flowing Pipe Wells. Water near the Surface. Rivers on two sides; ever-flowing creek through the tract. Front on the ocean.

Transportation and passage by steamship or railroad.

S. P. Railroad through the Tract.

23 HOURS FROM SAN FRANCISCO.

Convenient to markets and competing lines of shipments for produce, etc., etc.

The unsold land for sale or lease in sections or fractions, by

Alfred Robinson,
120 Sutter Street,
San Francisco, Cal.

Or apply to

Wm. R. Olden,
Anaheim, Los Angeles, Cal.

Or returning Westminster, Colony, to REV. ROBERT STROSO, *Westminster, Cal.*

Terms, one-fifth cash, balance on interest at 10 per cent. Send for Circulars and Maps.

SPECIAL INDUCEMENT

TO SUBSCRIBE FOR THE

SEMI-TROPIC CALIFORNIA,

AN ILLUSTRATED MONTHLY

DEVOTED TO

Agriculture, Horticulture, and the Development of Southern California.

OFFICE, Rm. 1 M. BAKER BLOCK, LOS ANGELES Cal.

TELLS ALL ABOUT CALIFORNIA.

☞ *To increase our Eastern Circulation, we offer until June, the "Semi-Tropic California" for one year, together with our new pocket map of California and Nevada (size 20x27), accurate and correct to date, for ONE DOLLAR. Inclose currency, stamps or post-office order, giving name of Post-office, County and State.*

Address

CARTER & RICE,

Los Angeles, Cal.

☞ Readers Independent Gazette.

JUNE

SEMI-TROPIC CALIFORNIA AND SOUTHERN CALIFORNIA HORTICULTURIST.

LOS ANGELES, CAL.
CARTER & RICE,
PUBLISHERS

VOL. III. 1880. No. 6.

J. G. JACKSON. W. G. KERCKHOFF. JAMES CUZNER.

JACKSON, KERCKHOFF & CUZNER,

Dealers in

Lumber, Windows,

Blinds, Doors,

Moldings, Laths, Pickets, Shingles,

Plaster Paris, Cement and Hair.

Cor. of Alameda and First Sts.

Los Angeles, Cal.

EVERYBODY

Knows or should know that

The Grange Store

—IS—

Noted for its Low Prices

—AND—

Choice Groceries.

Highest Prices Paid for all Kinds of Country Produce. Gilt Edge Butter a Specialty.

SEYMOUR & CO.

A. LUSK & CO.,

COMMISSION MERCHANTS,

Wholesale dealers in green, dried and canned fruits, and general farm products. Their long experience in the business, and high, honorable dealing, entitle them to the patronage of all shippers.

534 & 536 Clay St. 539 & 531 Merchant St.
SAN FRANCISCO, CAL.

A. L. BANCROFT & Co.,

Booksellers,

Stationers,

Publishers,

Designers,

Engravers,

Printers,

Lithographers

—AND—

Binders.

A. L. BANCROFT & CO.,

721 MARKET STREET,

SAN FRANCISCO.

SIERRA MADRE VILLA.

A Private Hotel on the table lands of the Sierra Madre Mountains, in full view of the famous Orange Orchards of the San Gabriel Valley in Southern California, for the accommodation of parties seeking a mild and healthful climate. It is four miles from the Mission San Gabriel Railroad and Telegraph Station; thirteen miles from Los Angeles. The buildings are entirely new, lighted by gas, and with all the comforts of an Eastern home. For further information

Address **W. P. RHOADES, San Gabriel, Los Angeles Co.**

LANDS!

FOR SALE—TO RENT—AND FOR DISPOSAL OTHERWISE,

In different portions of Los Angeles County and City.

Especially upwards of 2000 acres of land well adapted to the growth of vineyards, to be disposed of on shares, i. e., one portion to be cultivated, planted and kept in grape vines for three years, in consideration of conveyance of another portion. Of the lands last referred to a large body is on the Tujunga Ranch, and is irrigable from the Tujunga Creek during the winter and up to the middle of June. Some capital as well as labor is requisite for constructing ditches and clearing off the brush which grows on about two thirds of the land. Any company or colony seeking a location desirable as an investment, or as profitable, healthy and pleasant homes, should look at these. For particulars, apply to

HUGH GLASSELL,

At Office of Glassell, Smith & Smith,

TEMPLE BLOCK, LOS ANGELES CITY.

T. E. ROWAN,

REAL ESTATE AGENT

—AND—

COMMISSION AGENT.

Ranches, Orange Groves, Fruit Lands, Farms and Vineyards for Sale.

AGENCY FOR

State Investment and Insurance Company,
Of San Francisco, Cal.

77 Downey Block,
Los Angeles, Cal

SEMI-TROPIC CALIFORNIA

DEVOTED TO AGRICULTURE, HORTICULTURE, AND THE DEVELOPMENT OF SOUTHERN CALIFORNIA.

VOL. III. LOS ANGELES, CAL., JUNE, 1880. No. 6.

LOS ANGELES COUNTY AS A STOCK COUNTY.

MESSRS. CARTER AND RICE: Although the name of your paper would seem to confine your contributors to horticultural subjects, still I think that all matters relating to agriculture are legitimate subjects for discussion. This county has many and great capabilities. Within its boundaries there are great varieties of soil and climate, each of which has its special adaptation—some parts to semi-tropical and others to northern fruits; but the large body of moist, irrigable valley lands are especially adapted to the production of corn, wheat, barley, roots, and, on account of their large yield of native grasses and alfalfa, are particularly adapted to the raising of all kinds of stock. When animals can have a full supply of green feed all the year, they are always kept in a thrifty, growing condition upon food which is produced at small cost. They grow to a larger size, and are mature at an earlier age, than in countries where similar animals are kept in a state of semi-starvation for half of the year. Here, on account of the mildness of the climate, but a small proportion of the food is required to sustain life, and all the surplus is utilized in the maintainance of growth and production of flesh; or, in other words, but little food goes to waste, and much to profit. In the northern part of the State, the green grass lasts but six or seven months, and in most cases stock during the remaining five or six months of the year have a hard time to keep "soul and body" together, until grass comes again, in ordinary seasons; but during the unexampled cold of the past winter, the rains having destroyed the dried grass, and the long-continued frosts preventing the growth of the young grass, large quantities of cattle and sheep perished with hunger and cold, and the profits of years of hard work were lost. At the same time, in this county there was the greatest abundance of food for ten times the stock we had here, on the natural grasses, which our soil produces without care or cultivation. But if our lands should in the future be devoted to the extent of their capacity to the sustentation of beef cattle or dairy cows, it is a moderate estimate to say that they will fully feed three head per acre, giving them all they can eat three hundred and sixty-five days in the year. To do this would require artificial food, such as alfalfa, roots, corn fodder, &c., which would have to be raised and fed to them. But there would be this advantage. After the stock got fat, they would never fall off in condition, but would be always *prime beef*, for which the butchers pay the highest price. During the summer months, when the pastures are flush, everybody has fat stock, and prices rule low; but in the winter, stock kept on the ranges are invariably poor, and fat stock are in demand, and then is the time when our Los Angeles stockman makes his profit. Heretofore, San Francisco got her fat stock from Nevada during the winter; but now the Eastern demand takes the Nevada cattle, and San Francisco during the past winter had to gather up her fat beef where she could get it. This county furnished part of it, and could have sold her more, if we had had it; but we supplied them with fat mutton exclusively for several months.

We have in this valley large tracts of wet land, only suitable for pasturage, upon which the grass is always green. These lands can easily and cheaply be enclosed with wires and live posts, and the stock to put in them can always be bought at low prices during the spring and summer, and turned into the enclosure, where they can be kept without care or attention until the heavy rains set in, when they can be be removed to drier lands adjoining, which produce during the rainy months a heavy growth of barr clover and alfiterilla, upon which they fatten during the winter. In our ordinary years, cattle kept in this way would require no provision in the way of hay; but to be sure that his beef stock would not fall away between the old and new grass, he should have some provision of hay, or an alfalfa pasture, to put them on, until the new grass acquires sufficient substance to sustain and fatten. A large amount of stock could be handled in this way at but small expense. The cost of fencing would be principally for the wire, which is indestructible; the live posts, of willow or cottonwood, being cut on or near the ground where they are to stand; and the saving in vaqueros and their expenses would be very great—one man would be sufficient to look after two or three thousand head of cattle during most of the year. These lands, being kept moist by perennial springs, are unaffected by drowths or dry seasons; so there would be no risk of loss from them. In fact, if the stock were properly attended to, there would be no possible chance of loss from any quarter; and the profit would certainly be large. It is a chance for a capitalist; and, as there are many places suitable, there are chances for several of them. Smaller capitalists would have to content themselves with smaller tracts of land, raise the food for their stock, keep more to the acre, and, by extra care, they will produce a finer quality of beef, and get an extra price for their extra expense.

WM. R. OLDEN.

VITICULTURAL COMMISSION, in session at San Francisco, May 28th, elected the following officers: President, Harpad Haraszthy; Vice-President, Charles A. Wetmore; Treasurer, Chas. King; Secretary, Dr. Jno. J. Bleasdale. The Commission will go to work, and great good is expected to result from their labors. Their first report will be made about November, and it is to be hoped that our vineyardists will give all the aid they can. Each district commissioner is to hold one or more viticultural meetings, to discuss subjects of interest, and report to the State Board; the whole to be compiled and published for the public good. We hope to be able to announce in our next issue when and where this district will meet. The $4,000 appropriated by the State was apportioned for expenses, as follows: Salary of Secretary, one year, $1,200; rent of offices, $500; furnishing offices, $400; transportation expenses of Commissioners for semi-annual meetings, $210; investigating phylloxera and vine diseases, and stationery, printing and incidentals, $1,290.

SEMI-TROPIC

CALIFORNIA

AND

SOUTHERN CALIFORNIA HORTICULTURIST.

Devoted to Agriculture, Horticulture, and the development of Southern California.

Terms $1.50, per year, in advance, postage prepaid.

Address, CARTER & RICE, Los Angeles, Cal.

N. C. CARTER, GEO. RICE. } PUBLISHERS AND PROPRIETORS.

CIRCULATION - - - - 8000.

PREMIUM MAPS.—Our first edition was exhausted almost immediately on their offer as a premium to subscribers. We will soon have another large edition, and will send them out with our July issue, to all those who have not received them, and to all new subscribers who remit the subscription price.

OUR PREMIUM MAP is a large (size 20 by 24), handsomely engraved and printed map of California and Nevada, geographically correct, and folded in a flexible cover.

The retail price is $0.50
Semi-Tropic Cal., one year, 1.50

Regular price $2.00
Sent to any address for 1.50

This offer is good until July 4th.

THE HORTICULTURAL SOCIETY.

A few gentlemen have generously put their hands in their pockets, and settled all the accounts against the society, and provided for holding a Fair this Fall in the Pavilion in this city. A large premium list will be offered, and a *guarantee* given that it will be paid, and paid promptly, on the last day of the Fair. Persons who compete for prizes can receive their premiums and goods exhibited, to take home with them at the close of the Fair.

Make a note of this, and begin at once to get your exhibits ready. There is a great deal of good to come from a friendly competition, and above all, to receive some of the large prizes offered, is handy to have in your pocket to take home with you, to buy a bill of goods, or subscribe for the SEMI-TROPIC CALIFORNIA. Send in your address for a catalogue free.

Address SEMI-TROPIC CALIFORNIA.

THE LOS ANGELES BUILDING.

The House Committee on Public Buildings has agreed to report favorably the $75,000 appropriation for the public building in Los Angeles, Cal.

Six months we have lived as a paper, and from the good state of our health, we expect to live a long and useful life. Our readers will pardon our egotism, when we say that the SEMI-TROPIC CALIFORNIA, the Horticultural and Agricultural paper of Southern California, has given almost universal satisfaction throughout not only our own state, but the United States.

One feature of our paper has been to tell the people of the Eastern States about Southern California, and by fair representations, have them more among us and become identified with us; help to improve our thousands of acres of fertile lands, yet unoccupied, and thereby add to our material wealth and prosperity.

That we have succeeded, is patent from the fact that a number of well to do families have moved here from the East, reported at our office, and informed us that the SEMI-TROPIC CALIFORNIA was instrumental in bringing them here.

We have received nearly one thousand letters and postals of inquiry, and a large number of families are coming here this summer and fall. Others at this writing, are on the way here, and we are notified to rent a temporary home for them to move to on their arrival. We have circulated over 30,000 papers in the East. Our local circulation is larger than any other paper in Southern California, and we print and circulate more papers each edition than any other Agricultural or Horticultural paper on this coast.

Our Mr. Carter goes East in answer to the demand of emigrants who contemplate moving here. He will establish headquarters in New York City, and ticket parties or families direct for Los Angeles and other points in Southern California.

The SEMI-TROPIC is acknowledged the handsomest publication in the state, and we shall leave no stone unturned to improve, and meet the approbation of our generous patrons.

SIXTH DISTRICT AGRICULTURAL ASSOCIATION.

By an Act of the Legislature, the following counties comprise the Sixth District and are entitled to $1200 state funds: San Diego, San Bernardino, Los Angeles, Santa Barbara, Ventura and Inyo. An organization has been perfected, and the following named gentlemen appointed by Governor Perkins as a Board of Directors, J. E. Hollenbeck, Wm. Niles, Gov. J. G. Downey, O. W. Childs, L. J. Rose, F. J. Barretto, Elwood Cooper and J. W. Waters, Jr. An excellent board and one that will give entire satisfaction to the district.

We bespeak a hearty co-operation of every citizen in the district who is interested in the welfare and success of our agricultural interests.

The District and Horticultural Fairs will be held at the same time, the dates yet to be named. We would suggest the advisability of conducting the two fairs under one management, and thereby make a grand success of both, in the interests of Agriculture, Horticulture, and Stock Improvement.

ANOTHER IMPORTANT INDUSTRY

IT is always a source of pleasure to us to be able to chronicle the establishment of new industries in this State, which, more than all others, requires industry in legitimate channels to develop its resources; "stocks" having, for so many years, occupied public attention to the exclusion and detriment of enterprises which would, in a far greater degree have benefitted our citizens and our country. Our pleasure is enhanced when we can record that this industry is not, and cannot be profitably prosecuted in more than one or two states of America, other than our own, that it has long and earnestly been desired by many of our farmers, as it opens up a new channel for one, at least, of their productions which, until now, has been comparatively useless, and entirely profitless.

We recently paid a visit to the factory of Messrs. James & Pariser, of San Francisco, Mince Meat and Fruit Butter manufacturers, and were let into the secret we now give to our readers. In one department of their business they use largely of candied citrus fruits, and this led them some two years ago, to commence experiments with California green fruit, with the conviction that it could be preserved equal to the imported. We can now honestly assert, and samples at our office will convince the most skeptical, that success has crowned their earnest efforts, and for our patrons of Southern California, we heartily thanked them. Indeed we cannot see how anything but success could follow the efforts of these indefatigable gentlemen, they are upright and thorough in all their transactions, and in some branches of their business they have outrun and excelled much older firms; for instance, we sampled fruit butters which were simply delicious, although made nearly two years, and which had been kept in ordinary wooden pails, with the covers just tapped on, but otherwise unsealed, and mince meat a year old kept in the same way. Now, it is within the range of possibility to keep hermetically sealed goods for any length of time, but in our warm California climate it is a far more difficult matter when unsealed, and in these times when there is so much talk of *adulteration*, this circumstance ought to speak volumes to the public of the *quality* of the goods put up by this firm. They requested us to encourage the growth of the citron, particularly the large and choice varieties, and also the China lemon, Seville orange, etc., and assured us they would purchase all that could be raised in California for the future at good prices. Messrs. Wm. T. Coleman & Co. of San Francisco and New York, have accepted the exclusive agency for James & Pariser's Candied Peel.

Our people cannot be too careful in observing every imported tree, cutting or shrub, and see to it that no destructive enemies to our orchards, fruits, etc., are thus introduced. Better do without new kinds, and improve what we have, than to import destructive insects.

We will answer all communications addressed to us to reference to California through this column. We will answer regular subscribers by personal letter, when stamp is inclosed for postage.

M. D., Pittsburg, Pa.—What we said in our April number about lawyers is just as true about doctors, and probably more so, as we have less sickness and more law. The profession of M. D. is certainly full here in every grade, with some very eminent and successful men, and none others are really needed. We know of two Eastern gentlemen who tried the practice of physics here, and went back home disgusted with the country.

Subscriber, Modesto.—We can endorse the Spring Tooth Harrow and Cultivator as doing all that is claimed for it, probably more. We have them at work on the *Semi-Tropic's* experimental farm, and are entirely satisfied with them, after several week's severe test. The price may seem a little high, but we would not take the money ours cost and do without them.

D. C. S., Elwood, N. J.—We are satisfied this county won't suit you; you want too many good things, and they are not all here, and we do believe there is no place on this earth has everything to satisfy everybody. Don't come here unless you expect to find society just about the same, dogs and cats as plentiful, soft water as scarce, and wood just as high as where you are.

SCIENTIFIC VIEW.

Sterling Valley, Cayuga Co., N. Y.,

Editor of Semi-Tropic California: Your paper for April contained an article on alkali lands, which stirred up my mind by way of remembrance, and I want my say through your paper. All soil is of the rock from which it came. In a country where the rock is flat or level, the soil is like the rock—all of one kind; consequently, does not contain all of the properties requisite for every kind of vegetable produced in any country. The rock in the Sierra Nevada mountains stands on edge, and the mountain streams cut the rocks at right angles. Consequently, the made lands of the valleys are composed of all the properties of earth's materials; for all kinds of rock is there represented. Now, in our country, the rock has not been set on edge, as in yours. Consequently, while traveling through it, we can tell what the rock is by the change of soil or by the surface. Hence it is easily exhausted. Yours is of all kinds of rock; therefore, "lasting as the hills." Now, are not these some of the reasons why your lands are so lasting, while ours need so oft replenishing? Alkali is good when the quantity is limited. Are not these some of the reasons, too, why the soil from the bottom of the well produces as well as any. All the earth is tending to a level, and it is only a question of time when there will be no point of rock above water. Franklin Dewel.

Editor's Table.

Register of the University of California for 1879-80.——The course of instruction as laid out is thorough and complete, laying a broad foundation for scientific and literary culture, as also for practical instruction in all its departments. The highest educational advantages are to be had in our State University. With tuition free to all who reside in the State, every young lady and man should avail themselves of the grand opportunity thus offered for development.

Calendar of the University of Michigan for 1879-80.—From Henry D. Bennett, Secretary and Steward, Ann Arbor. This institution is one of the first in the United States. Persons interested can secure a catalogue by addressing the Secretary.

Explorations of the Colorado River of the West.—Report on the Yellowstone National Park, Department of Agriculture, (special report). Land Office Report received, for which we are indebted to Mr. August Dudenhauser, Interior Department. We are also pleased to announce that Mr. D. contemplates becoming a citizen of Los Angeles in the near future. We extend him a cordial welcome in advance, and feel sure he will be delighted with his new home.

Transactions of the Massachusetts Horticultural Society for 1878.—In two parts, for which we are indebted to the indefatigable worker Robert Manning, Secretary of the Society. The cash prizes offered for 1880 amount to $3,050. We should like to see Southern California carry away some of the first prizes; and, if the awards for grapes, pears and fruit generally were as liberal as for some other exhibits, we would see to it that we were represented in their next Fair.

Quarterly Report, Kansas State Board of Agriculture, J. K. Hudson, Secretary, Topeka, Kan.—Mr. Hudson is fully alive to the interests of his State. The report on Swine Husbandry is thorough and exhaustive, and will prove of great benefit not only to Kansas but to the country at large.

Fruit Recorder, Rochester, N. Y., A. M. Purdy, Editor. $1 per year. This valuable monthly should be in the hands of all our fruit growers. Mr. Purdy is a practical fruit grower and is a recognized authority on the subject, consequently his monthly is correspondingly valuable.

The Sugar Beet, Henry Carey Baird & Co., Publishers, Philadelphia, quarterly, at 50 cts. per year, is a new periodical claiming patronage, and, from our examination of the two first numbers, we do not hesitate in giving it our endorsement. The beet growers of Southern California would profit by the reading of its pages.

Golden Days, Jas. Leverson, Publisher, Philadelphia, Pa. $2 per year. An illustrated weekly publication for boys and girls. In this new candidate for public patronage, we have good wholesome reading presented in its most attractive form. Our children will have reading, and every parent should place such a paper as the *Golden Days* in the hands of their children, and thus have them avoid the pernicious trash that floods the news stands of our county.

Willow Dale, is the attractive home of Mr. N. C. Carter of the *Semi-Tropic California*. It was at Willow Dale that the fountain spray encased a young and bearing orange tree in a crystal covering during the severe frosts of the winter of 1878-79. This season has left the bananas unharmed. It is the only place in all the region where I have this year seen green and growing bananas. Thrifty date palms and tender vines around the hospitable piazza, make this sheltered nook one of the most inviting points along the drive to the Old Mission. His vineyards are very promising.

Jeanne C. Carr, Cor. Rural Press.

Climate.

War Department—Signal Service U. S. Army. Local Observations. Los Angeles, Cal., March, 1880.

Highest Barometer, 30.312; date, March 26.
Lowest Barometer, 29.872; date, March 4.
Monthly range of Barometer, 0.440.
Highest Temperature, 73.5; date, March 22.
Lowest Temperature, 36.0; date, 5th and 16th.
Monthly range of Temperature, 37.5.
Greatest daily range of Temperature, 33.5 deg.; date, March 7.
Lowest daily range of Temperature, 10 deg.; date, March 2, 3 and 24.
Mean of Maximum Temperature, 62.7 deg.
Mean of Minimum Temperature, 42.0 deg.
Mean daily range of Temperature, 20.7 deg.
Total rainfall, or melted snow, 1.45 inches.
Prevailing wind, N. E.
Total movement of wind, 3.622.
Maximum velocity of wind and direction, 17 miles N.; date, March 14.
Number of clear days, 16.
Number of fair days, 10.
Number of cloudy days on which rain fell, 2.
Number of cloudy days on which no rain fell, 3.
Total number of days on which rain fell, 6.
Dates of frost, March 5th, 15th and 16th.

J. M. FRANTZ,
Sergeant Signal Corps U. S. Army.
Station: Los Angeles, Cal.
Date: March 31, 1880.

Southern California should raise enough produce and provisions to feed all of her own people and have enough left to feed the people of Arizona that are dependent on imported provisions, fruits, vegetables, etc.

Northern California cannot compete with us in this matter. We can produce more with less labor, consequently at a less cost, and the difference of freight is largely in our favor. This item alone will save a handsome profit to our producers.

That this difference in rates of transportation from San Francisco and northern towns to points in Arizona, and from Los Angeles to the same points is considerable, may be seen from the following statement:

FREIGHT.

		From San Francisco.	From Los Angeles.
First Class, per 100 lbs.	.....	$4 50	$4 75
Second Class, "	.....	3 25	3 50
Third Class, "	.....	3 00	3 25
Fourth Class, "	.....	2 75	2 95
Fifth Class, "	.....	2 50	2 75
Special, "	.....	3 50	3 50

We should furnish all their flour, barley, potatoes, bacon, butter, eggs, and fruits, and realize good prices.

Our wholesale merchants can lay their goods down here in Los Angeles as cheap as the San Francisco merchant, and there is no good reason why we should not supply the trade in Arizona, New Mexico, and in old Mexico.

Write to the sad old folks at home,
Who sit when the day is done,
With faltering hands and dim-worn eyes,
And think of the absent one.

For the sad old folks at home,
With locks fast turning white
Are longing to hear from the absent one;
Write them a letter to-night.

SUMMER TIME.

Oh, sweet perfume of bud and bloom,
On west winds faintly winging!
I almost hear the voices clear
Of blue-bells softly ringing;

Of elfin hands that break the bands
Around each floweret closing,
That spring to life, with visions rife,
Their glory all disclosing;

Of voices fleet, as swift and sweet
As fairy echoes ringing,
That softly breathe where blossoms wreathe,
Their balmy odors flinging.

The wild bees cling where garlands swing,
In dreamy fragrance sighing,
Within each cell, where echoes dwell
To list their low replying.

The tendrils dwell in shade and shine,
Around each pillar gleaming,
And redly turn where blossoms burn,
Like crimson banners streaming.

A brighter gleam on hill and stream,
And on the shining river,
Whose pulses thrill the petals still
That idly dance and quiver.

By fragrance stirred, each fleet winged bird
Sends from its free heart welling
A wild, sweet song, that lingers long,
Above the blossoms swelling.

The zephyrs stray o'er bloom and spray,
In tender silence grieving,
And linger yet, as in regret,
With wayward footsteps leaving.

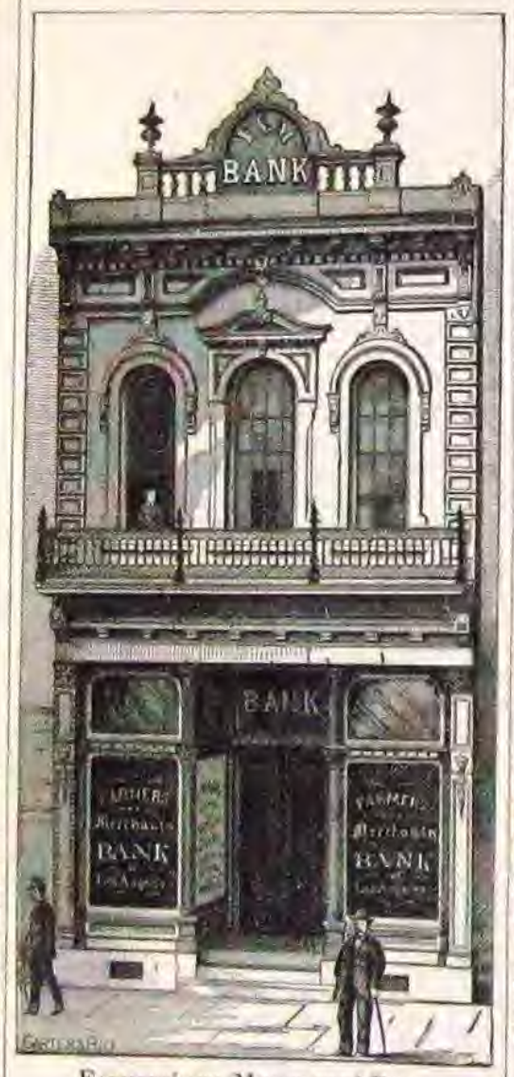
And over all the spendors fall
Of sunset glories dying;
And shadows creep where flowerets sleep,
Beneath the south winds sighing.

ROSALIE KERCHEVAL.

GET READY FOR THE FAIR.—The management of the Horticultural Fair have provided for the payment of a large premium list, which is *guaranteed* to be paid the last day of the fair. Everybody should commence to prepare their exhibits. Big things of all kinds, such as pumpkins, squashes, melons, corn; large, fine bunches of grapes; the choicest specimens of all kinds of fruit, vegetables, green and dried fruits, jellies; all kinds of needle and fancy work, etc. Send to *Semi-Tropic California*, Los Angeles, for catalogue.

SUMMER RESORTS.—Santa Monica is to the Pacific Coast as Cape May and Long Branch to the Atlantic. This delightful retreat from the hot weather has become the noted resort for the people of this entire coast. The beach is not excelled for bathing and driving; and during the heated term, the beauty and fashion, rich and poor, gather here to spend a few weeks or months, enjoying the delightful sea breeze, the surf, and gay life at the hotels and cottages. That prince of landlords, D. M. Johnston, of the Santa Monica Hotel, still entertains his guests with his well known hospitality.

A. J. SPENCER raised two hundred bushels of "White Prolific Corn" per acre near Santa Ana, this county, last year, and has left some of the seed corn at the Grange Store and Woodhead & Gay's, this city, for sale. This corn took the highest award at the Paris Exhibition. Mr. Spencer received the first for it at the Southern Californian Horticultural Fair last fall. We advise our farmers to give it a trial. It is said to be particularly adapted to dry land, maturing as quick as the King Philip variety.



FARMERS' AND MERCHANTS' BANK,
LOS ANGELES.

LARGEST BOOK PUBLISHED.—The new edition of Webster's Unabridged Dictionary, just issued, is believed to be, in the quantity of matter it contains, by far the largest volume published. It now contains about 118,000 words defined, and nearly 15,000 words and meanings not found in any other one dictionary. The Biographical Dictionary, just added, supplies a want long left by the reader and student, in in giving the desired information so briefly. ever was any one volume so complete as an aid in getting an education.

WILMINGTON HARBOR received an appropriation of $3,500 by Congress.

THE TWO GARDENS.

Two gentlemen built themselves beautiful houses, and attached to each was a spacious flower garden. There was in each a little fountain, with its pretty bordering of rockwork around the basin, its cool green lichens and emerald mosses. Each had little winding ways, bordered with choice and brilliant flowers. From the first spring violets and crocuses, until the late frosts nipped the stately dahlias and late roses, the garden of each was a scene of beauty. But around one garden was a tall, close wall. Trained upon it were peaches and apricots, and all fruits that love the sunshine; but no one even enjoyed the sight of these beauties, except a select few who walked through the garden paths with the owner and his family.

The other enclosure was only a lattice work of slender but substantial iron. The sight of all the gems of beauty collected there was open to all. The proprietor rejoiced in the thought that so many hearts were daily cheered and gladdened by the view. It always gave a double zest to his own enjoyment to see a row of little faces pressed against the lattice, eagerly drinking in the beauty of the scene. It was rare, indeed, that they went away without a handful of gay flowers, a peach or a cluster of grapes in their hands.

While his neighbor's heart was growing colder all the time in his stately, shut-up garden, he was growing larger-hearted, loving and beloved. He was scattering blessings all about him, while the other's life was like that of a glittering, polished icicle.

On the very same principle many live all through their days. They shut up the fountain of kindness in their hearts, so that no rill of pleasant, cheering words flow forth from it to gladden other lives. How blessed the opposite life of one who scatters sunbeams in the homes of the poor, in the groups of merry children that he meets in the crowded market-place or busy shop—and, above all, who carries his brightest, gladdest cheer into the bosom of his own home circle! Do not shut up your happiness, but let all who will, rejoice in it with you

---

BRIGHT.

During the dark days of Kansas, when the "hard times" following the panic was doubly increased by the devastating grasshopper, we know a firm doing business in the beautiful town of Fort Scott by the name of Bright Bros., who adapted themselves to the circumstances by selling goods to meet the demands of the times. We have the pleasure of informing our readers that one of the men, Mr. Jas. C. Bright, has brought all his keen experience along with him, and a large and miscellaneous stock of dry goods, notions, boots and shoes, hats, etc., which he is selling at prices so low as to astonish the closest and most careful buyers. BRIGHT'S CHEAP STORE, Main Street, near corner of Commercial, is the place, and you should see him, his goods and prices before you buy.

I. W. HELLMAN.

The engraving on this page is a faithful picture of the elegant and beautiful home of our fellow townsman, Isaias W. Hellman.

The residence is said to be one of the finest and most complete in the State, outside of San Francisco. It is situated on the south-west corner of Main and Fourth Streets, and is truly an ornament to our beautiful city.

Its faithful reproduction on paper will give our Eastern readers a more tangible idea of our progress than whole pages of written description.

Mr. Hellman is one of our representative men. He came to Los Angeles from Bavaria when a boy of fifteen, served as a clerk in the dry goods house of I. M. Hellman for five years, when he went into the same line of business for himself. This he carried on successfully until 1868, when he entered the banking business as senior partner in the firm of Hellman, Temple & Co. This partnership only continued about three years, Mr. Hellman then withdrawing from the firm and organizing the Farmers' and Merchants' Bank, and is now its President. The Farmers' and Merchants' Bank is one of the strongest financial houses in the State—the first incorporated, and the oldest bank in Los Angeles.

Mr. Hellman is known as a very careful and prudent financier, never entering into any of the speculations that have proved a ruin to so many concerns and individuals. The Farmers' and Merchants' Bank now occupies a commodious building erected expessly for the business, containing an immense burglar and fire-proof vault, with every precaution used for the safety of depositors. The Directors are among the most substantial citizens of the county: Isaias W. Hellman, O. W. Childs, L. C. Goodwin, Phil. Gainier, John S. Griffin, C. E. Thom, A. Glassell, Dom. Amestoy, and José Mascarel.

L. C. Goodwin, Vice-President of the Farmers' and Merchants' Bank, has lived in Los Angeles since 1850, a retired merchant of large wealth, and one of the most respected of our citizens.

John Milner, the Secretary, has been with the bank during the last eight years, and is favorably known in financial circles.

In addition to Mr. Hellman's banking interests, he has always been one of our foremost public-spirited citizens, and has proven his faith in Southern California and Los Angeles by building many of the finest business blocks and residences in the place, and in establishing gas and water works, being a director and stockholder in both companies.

A large owner in the famous Cucamonga vineyard, he does much to advance the wine interests of this country, the wines of this vineyard being well known throughout the United States and Europe, and always commanding a high price.

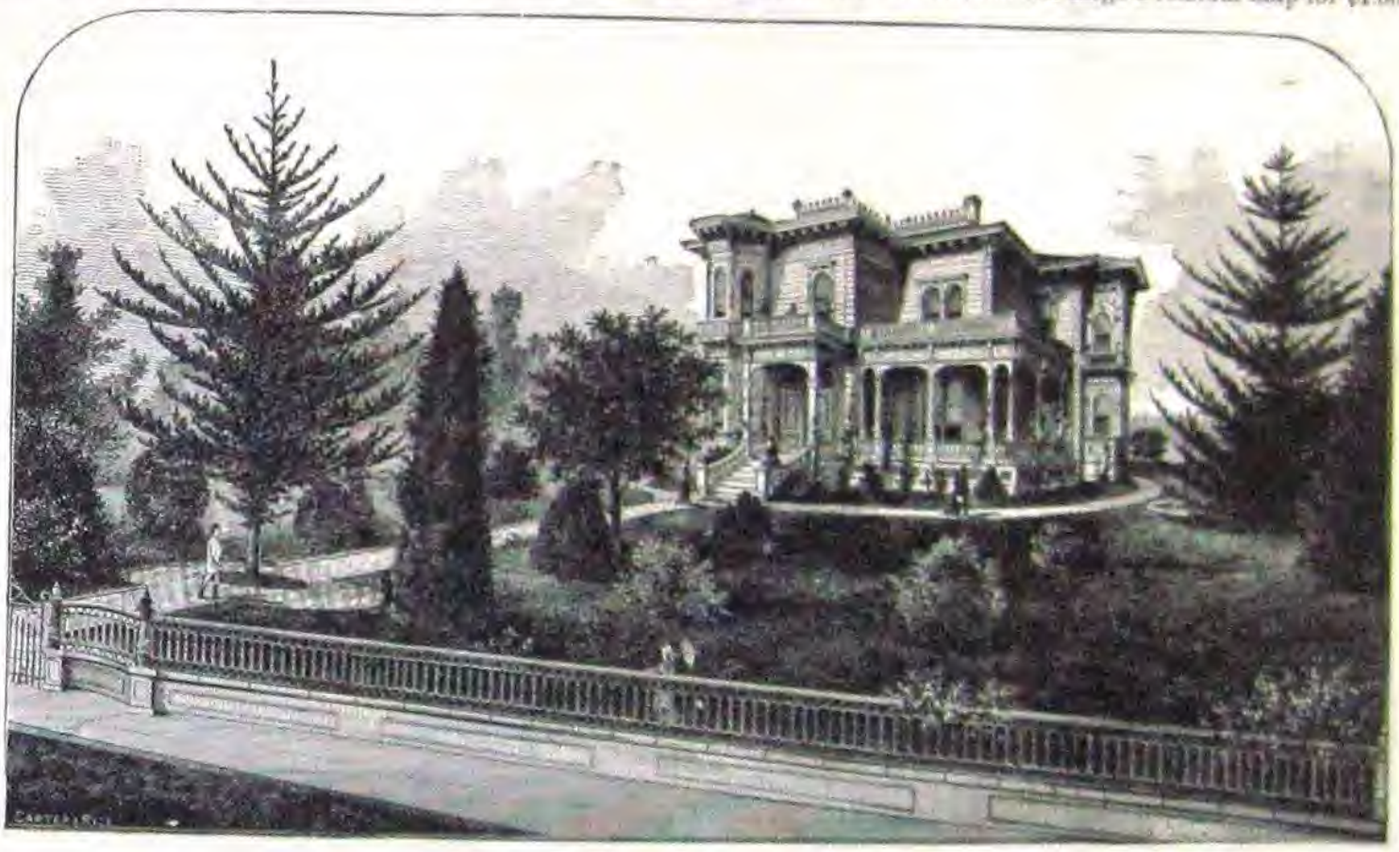
Mr. Hellman also owns several flocks of fine sheep, and devotes some attention to improving the stock of Southern California.

He, together with Gov. Downey and O. W. Childs, has donated a tract of land on which to build a University in Los Angeles, and, we are glad to state in another part of this paper, that the first building will soon be erected thereon and ready for occupancy.

Mr. Hellman has apparently only entered on a really useful and profitable life, being now but thirty-seven years old.

Mr. L. J. Rose yesterday bought twelve thousand gallons of wine for which he paid fifty cents a gallon. This is one of the gratifying notes of our vineyard development. One year ago an announcement of such a purchase at thirty cents a gallon would have carried joy to the heart of the local *vignoron*.—*Herald*.

The SEMI-TROPIC CALIFORNIA for one year, and our large Premium Map for $1.50.



RESIDENCE OF I. W. HELLMAN, LOS ANGELES.

The theory that the Filbert will not do well in Southern California seems likely to be exploded, that is if we may judge from the appearance of nearly a hundred three years old bushes on the ranch of William Niles on Washington Street. These bushes are about nine feet in height, have a dense foliage of a beautiful light green and give promise of a good and profitable crop. We would be glad to learn the success of any others who have been experimenting with the Filbert in this section.

CURL LEAF on peach trees can be remedied by plowing around trees deep, slitting the bark, and pulling off the leaves of the tree that are curled or affected. We would like postal cards from every one who has tried these or other remedies, their reasons for the blight, and any information they can give from observation or practice.

Horticulture.

SAN BERNARDINO COUNTY AT THE LOS ANGELES EXPOSITION.

By John H. Shields.

San Bernardino county is suggestive of snowy mountains, sensational railway doors through the cloud-belted sierras, enchanting valleys, somewhat disenchanting grizzlies, the elegant deer, the more elegant antelope, the immensely horned mountain sheep that is more than sheep; grand pineries, saw mills, gold mines, statuary marble, tin mines, hot springs, hot mill-streams, artesian fountains in the second story; the Santa Ana river, Commodore Wagner, sheep walks, cattle ranges, apiaries, alfalfa, orange groves, corn fields, fig trees, barley fields, lime trees, apple orchards, lemon trees, peach orchards, pepper trees, apricot orchards, hogs, wine, pears, raisins, almonds, apple-cider, peace, plenty, and progress.

THE DISPLAY OF APPLES.

Mrs. Glen, of Cajon Pass, exhibited, among other varieties, a red apple, one foot and two inches in girth; a Pippin, 12¾ inches.

Peter A. Forsee, whose orchard is 3,500 feet above sea level, exhibited a Rhode Island Greening, 14 inches in girth; a Baldwin, 12¼ inches; a Limbertwig, 11¼ inches; a Yellow Belle Fleur, 12¼ inches; a Spitzenberg, 11¾ inches; a Roxbury Russet, 11 inches; a White Winter Pearmain, 12¾ inches; a Gloria Mundi, 15¾ inches; a Forsee seedling, large and very sweet; the Tulpehocken, 13¼ inches. Mr. Forsee keeps apples sound through the winter and until May.

James Boyd exhibited the products of his farm at Riverside, among which were yellow Newtown Pippins, Rome Beauties, Nickajacks, Baldwins, and Spitzenbergs. Mr. Boyd keeps apples until April.

PEARS, PEACHES, AND FIGS.

James Boyd, of Riverside, exhibited a Winter Nellis Pear, 11 inches in girth; also cling peaches and luscious figs.

DRIED FRUITS.

H. A. Westbrook, of Riverside, exhibited dried figs, almost, if not quite, equal to the best imported; also unpeeled peaches, as merchantable in appearance and quality as the best of the cotton-belt.

Mrs. E. P. Murphy, of Riverside, had evidently exercised care and skill upon excellent peaches to begin with, in order to the production of the choice dried fruit exhibited by that lady.

James Boyd exhibited apples, thoroughly dried in the sun in one day; also unpeeled peaches, very sweet, sun dried, and yet bright enough to pass for peaches dried by the Alden process. Flies and fermentation are too slow to make any history to speak of while the Riverside sun is doing its little job of desiccation.

Jennie and Johnie Boyd, children of Mr. James Boyd, exhibited dried figs, apples and peaches, greatly to the credit of Riverside young America.

D. H. Burnham, of Riverside, handsomely illustrated the increasing interest in the hitherto backward industry of drying figs.

RAISINS.

If one would keep up with the steadily and rapidly progressive raisin industry of California; if he would keep abreast, in point of information, with those who are best informed on the subject of the best natural capacities of the Pacific Slope for raisin making, thus far practically demonstrated; it is sufficient if he attend the annual Exposition at Los Angeles, and inspect the raisin display from Riverside. Most of the industries of pomoculture advance toward perfection slowly, as up an inclined plane. The industry of raisin making, as illustrated in the annual exhibits made by Riverside, has advanced toward perfection swiftly, as by upward, annual springs, from level to loftier level. Three years ago Southern California was mum about her achievements in the way of raisins; for the best achievement was an inferior dried grape. No wonder, then, that now Southern California; that thousands of visitors at the last Exposition; that consumers from San Diego to Maine; all have something to say about the raisins of Southern California, which have appreciated in quality to an equality with the best imported raisins. While I must reserve that Riverside is only one of the many places in Southern California where first-class raisins are made, I must concede that, in the upward leaps toward perfection, Riverside has been all the time the champion progressiveist.

If a pair of professional pugilists had battered each other in the valley of Riverside, the victor, photographed and engraved, would have stared out of show windows all around the world. But as the pomoculturists of Riverside, without bruising any person, have merely battered out of the soil an economic victory, industrially of national importance, there are no photos for distribution. I will pass the raisin champions by, simply adding that H. A. Westbrook exhibited raisins so large, so pulpy, soft and luscious, that orders to Malaga are out of order; that G. D. Carleton exhibited raisins so very attractive in every way, especially in the freshness of aroma, the naturalness of savor and the brilliancy of bloom, that a perfectly sane humming-bird might be tempted to vibrate between the blooming honeysuckle and the bloom on the raisin; that A. J. Twogood exhibited raisins of 1878, too good to be impaired by the lapse of a year, and too good to escape universal admiration.

A. S. White, of Riverside, exhibited raisins of the Gordo Blanco grape. Although it is maintained by some that the difference between the raisin made of the Gordo Blanco and of some other varieties is insignificant, yet I found the Gordo Blanco raisins exhibited by Mr. White better concealing their stems than any other variety. If this be the rule, it is not an insignificant difference.

It would extend this article beyond reasonable limits to give a detailed account of all the raisin displays from Riverside. I will simply add that any committee of award must possess unusual powers of discrimination who could accurately say precisely where the palm for greatest merit belonged among the displays from Riverside, including not only those mentioned already, but the superb displays of raisins made by Mrs. A. L. Eastman, by Judge E. J. Brown (of the crops of 1878 and 1879), by Shugart and Waite, by James Boyd, by A. P. Combs, and by E. H. Holmes. The notable uniformity of the numerous raisin displays by Riverside is owing to the rigorous system of inspection enforced by the Fruit Growers' Association of Riverside. I predict that the principal progress of the Riverside raisin industry for 1880 will consist in the establishment of almost absolute uniformity throughout the same class of raisin manufacture, not so much on account of any great room for improvement in the matter of uniformity, as in the lack of room for improvement in other respects.

TABLE GRAPES.

The table grapes exhibited by James Boyd would have been a great show outside of California. One of his Muscats of Alexandria measured three inches in girth. The notable conjunction in the Riverside table grapes of great size, solidity of pulp, intense sweetness, berries densely crowded, absence of interstices or broken contact of grape with grape, avoirdupoise of the bunch, and, withal, invariable and perfect freedom from rot, speck, softening or the slightest trace of mildew, is owing to the other conjunction at Riverside of liberal irrigation, generous soil, high atmospheric temperature and an extremely dry atmosphere. These two correlated sets of conjunctions are not peculiar to Riverside. They are imputable to other localities in Southern California where vineyards have been established. With the development of the abundant, partially concealed, though economically available water resources of Southern California, the two sets of conjunctions may be, together, expanded over vast areas. The combination of the facts, in the case of the Riverside display of table grapes, astonished no Californian. It did astonish the visitor from the East, who, upon his return to the far East, will recite his observations to incredulous home-folks; for there the meagrely berried catawba vine is once a year fantastic with paper bags, that bag the ungathered green clusters, to save them from mildew.

WINE.

Wm. Craig, of the Mill Creek Zanga, exhibited port wine, made of thoroughly ripe Mission grapes, of the vintage of 1874, without the addition of brandy or other foreign ingredient.

N. B. Hicks exhibited red wine, which elicited favorable comment.

MISCELLANEOUS.

Mrs. Catherine Boyd, of Riverside, exhibited oranges. Jas. Boyd made a display of citrus fruits. T. W. and P. D. Coner exhibited limes of the best quality. Mrs. Catherine Boyd exhibited lime syrup. Jas. Boyd exhibited grape jelly, preserved peaches, figs preserved in grape juice, canned peaches and Seckel pears. The preserved fig is one of the best of preserves, and one of the least expensive, because naturally sugared. A. J. Twogood exhibited choice almonds. G. N. Collins exhibited the downiest of pampas plumes; J. S. Ward, of Colton, the purest of alfafa seed; James Taus a sample of wheat of a yield of 36 bushels per acre. Aaron Harrison exhibited tempting bananas; John T. Reed a fine collection of minerals. The Summit Coal Co. made a display of San Bernardino coal.

FISH.

R. W. Waterman, of Waterman's Hot Springs, San Bernardino county, exhited a school of carp. The carp were set free in the basin of Beandy Fountain, a miniature lake in Exposition Hall. No exhibits were lively after the manner of Waterman's carp, and none attracted more attention.

There was another admirable display of carp from San Bernardino, made by J. H. Pettit.

CONCLUSION OF THE REVIEW.

This is the last of the lengthy series of papers reviewing the Exposition.

It has been the custom to review the annual Los Angeles Exposition in the "Horticulturist," the organ of the Southern California Horticultural Society. The late editor insisted that I should write up the review just concluded. I consented reluctantly. Had I forecasted the tediousness of the somewhat peculiar plan of the review, my reluctance would have been greater. But, once begun, I could not very well change the plan, much less abandon the undertaking altogether.

Those who perceive the defects of the review will try to forget them, in the effort to realise how few would even undertake such a free-will offering to Ceres and Pomona.

THE COST OF IRRIGATION.

THE cost of irrigation to one coming from a region where the summer rainfall (without cost) is relied upon to supply the needed moisture, is, before studying the subject, or having any experience with artificial irrigation, generally looked upon as a serious matter. It *is* a serious matter; and any one who tries both plans—the one artificial irrigation, being an intelligent use of brain and hand; the other, Rain, a reliance upon the fickle elements—soon learns what serious *losses* he may meet by a long "dry spell" or an excessive rainfall. The first is ever at your service, and reliable, the latter may be withheld, and you get no crop, or, as frequently happens, when a good crop is ready for the harvest, a heavy rain storm sets in, drenching and destroying it.

The cost of these *losses* is soon found to be greater than the cost of *water*.

An old irrigator, and a close observer, said to us not long since, "Why, raising crops by artificial irrigation is by far the *cheapest* way to raise them!" and he had been, till past middle age, a careful and economical farmer in New York and Pennsylvania.

The cost of irrigation depends upon conditions: If one owns his water supply, the cost is often less than when water is bought: but not always: for, the cost of "developing," making dams, digging ditches or tunnels, or laying pipe, may have been so great that the interest on such cost exceeds the annual expenditure for buying water.

Some soils are much more retentive of moisture than others and hence need irrigating fewer times each season.

Frequently the supply ditch is several miles long, bringing water from canons, along the face of a mountain, across beds of gravel in flumes or costly pipe, making the cost per "head" of water much greater than for shorter lines or artesian wells.

At present we will take the average ditch or *zanja*, reckoning the cost of a "head" of water at $2.00 for twelve hours.

The figures below are made up from statements made by intelligent men who are careful in both their figures and statements. Many cultivators have only an indefinite idea of the cost of irrigation, separate from the total cost of cultivation.

As winter cultivation is generally done independent of irrigation, we have nothing to do with it here, neither will we enter upon the domain of the *princely* orchardist, with his scores or hundreds of acres and gangs of coolie laborers, but take the average cost per acre for tracts containing from one to ten acres, reckoning labor at $1.50 per day and water at $2.00 for twelve hours, giving the average cost of each irrigation for each acre of orange orchard.

ESTIMATE.	LOWEST.	HIGHEST.	AVERAGE.
Water,	12	$1.87½	55
Preparing for Water,	15	62½	40
Applying Water,	26½	1.50	80
After Cultivation,	42	1.33	78
Average cost of each irrigation per acre,			$2.53
Average number of irrigations per year,			6.4

Average total cost for irrigating orange orchard per year being $16.19 per acre, including the thorough *cultivation* of the ground during the irrigating season, which is not strictly chargeable to the *irrigation* account. In very light, sandy and gravelly soils, the *after cultivation* need not always be done—so we will deduct it from the above total, leaving $11.20 per acre for the year.

The after-cultivation (except as above noted) *must* follow each irrigation—or the orchard will soon be ruined—and is somewhat more expensive than the simple use of the cultivator. If the ground is flooded it must (or should) be *plowed* afterward. If water is applied by running it in furrows along each side of a row of trees, or in basins around each tree, the cultivator will stir the ground sufficiently.

THE OLIVE.

ITS CURE FOR MARKET.

As the growth of the Olive is destined to take a prominent place in the products of Southern California, it becomes us to ascertain the *cheapest*, as well as the best manner of curing them, so as to make them take front rank in the market.

In the first place great care should be taken in picking the olive, none but the largest and finest formed should be used, and these should be picked in *green* state, when fully grown, just before ripening. The principal thing to be considered, is the removal of the bitterness. This can only be effected by the use of alkalies. The alkalie must be neither too strong nor too weak, the way of testing whether the lye is of a proper strength, is to take four or five earthen jars with lye of different strength noting particularly the proportions on each jar, then immerse the olives for forty-eight hours, the fluid should by this time have penetrated to the stone (some packers immerse for only twenty four hours but this speedy process has been found to damage the grain or texture of the fruit.) Having been immersed for forty eight hours, they must be removed and placed in fresh water for from five to six days, the water being changed three or four times daily, or until the water ceases to be discolored. The olives are then placed in a brine of the strength that will float an egg, in the following manner: take clean open mouthed bottles, fill with the fruit, shaking them well down (never pressing them) and pour in the brine completely covering the fruit, leaving a space of about a half inch from the cork, which should be good and well fitting. After pressing the cork well home, cover so as to exclude the air with sealing wax, or wax composed of black rosin and beeswax, and label.

W. E. Monroe.

WANTS TO COME BACK.

"FRIEND CARTER: I suppose if every one who has been to California with you should write to you as often as I would like to, you would have to establish a 'Literary Bureau.' But the fact is, I want to hear from your part of the country. My leaving California as I did was the supreme folly of my life, and I want to correct that error—in the only way possible—by going back, and to that end am putting my place in the best condition for sale. My place is finely located, very pleasant, high, dry and sightly, and I have a fine orchard; but it is not in California—the climate is that of New England still, and we do wish to live in a climate less rigorous during the winter." J. W.

Car loads of canned fruit are shipped to Southern California, when we should put up all the fruit to supply home demand, and have a surplus left to sell. Who will start a cannery?

SAN DIEGO—CITY AND COUNTY.

BY DOUGLAS GUNN, EDITOR OF THE SAN DIEGO "UNION."

THE Bay of San Diego was discovered in the year 1542 by Juan Rodriguez Cabrillo, a Portuguese navigator in the service of Spain. The present name of the harbor was given by Sebastian Vizcaino, who surveyed it in November, 1602. On the 16th day of July, 1769, the first Catholic Mission in Alta (upper) California was founded here by the Father Francis Junipero Serra, who had arrived here with a party overland from Lower California on July 1st. The foundation of the first mission building was laid on the point of the hill overlooking the river where the "Old Town" of San Diego is now situated. This is known as Presidio Hill, and remnants of the ruins of the old Presidio and Church are yet to be seen there. The missionary quarters were removed up the valley of the San Diego river about six miles, in August, 1774. The present mission buildings—or rather their ruins—stand on this last named site. They were begun in 1776, and the church was dedicated the next year; but the establishment was not finally completed until 1784.

The Mission Fathers cultivated the land extensively; they had wide fields of grain, vineyards and orchards, tilled by their Indian converts, and they also possessed large flocks and herds. They brought in water for irrigation by a ditch from a point on the river some miles above the Mission, and the ruins of their massive stone dam are to be seen in the Cajon Valley. Traces of their ditch also remain. The old Mission olive orchard is our best preserved relic of the past. Some 300 trees, in thrifty growth, produce their yearly crops of olives. From this olive orchard all the olive trees in California have been propagated; it is the first planted in the State; cuttings were sent from it by the Fathers to the other missions as they were successively established. In 1846 the last Mexican Governor, Pio Pico, by order of the General Government, sold the lands of the Mission San Diego, nearly 60,000 acres, reserving to the Church about 22 acres, which, with the crumbling buildings, olive orchard, etc., are still the property of the Catholic Church.

The municipal or Pueblo organization of San Diego was effected January 1st, 1835. Up to 1825, nearly the entire civilized population lived within the limits of the Presidio. Gradually the soldiers' families moved down to the foot of the hill, and formed the little settlement which afterward became the Pueblo, and until 1869 was the county seat of San Diego county. Thirteen votes in all were cast for officers of the Pueblo at the first town election in December, 1834. July 7th, 1846, the change of flags took place, and San Diego was thenceforth an American town. San Diego county was organized by act of the California Legislature in 1850, and on April 1st of that year the first county election was held. The town polled 157 votes at that election. The first county assessment roll shows the value of taxable property in 1850 as follows: Ranch lands, $255,281; ten stores, $65,395; 88 houses, $104,302; cattle, 6,789 head, $92,280: total value, $517,258. The city assessment roll for the same year gave, for Old Town, $264,210; New Town, $80,050; Middletown, $30,000; total value, $375,160. The aggregate population of the county in 1850 was 789, of which about 600 belonged to the city.

The growth of San Diego proper, dates from the year 1867, at which time the project of a Southern Pacific Railroad (first broached in 1854, and which had slumbered during the period of the civil war) was revived. As the proposed Pacific terminus of the road, San Diego came immediately into prominence. The Old Town was built some distance inland from the Bay. What was called New Town consisted simply of the Government barracks and the officers' quarters, and the ruins of a small wharf. Mr. A. E. Horton came here in the Spring of 1867, and conceived the idea that there would be an important city at this point, and that it would be built on the Bay. Accordingly, he bought at public sale in May a tract of some 900 acres of the Pueblo land on the Bay shore, had it surveyed as a town site, and gave it the name of Horton's Addition to San Diego. This tract is the centre of the present city of San Diego. The wharf now owned by the Pacific Coast Steamship Company was built by Mr. Horton in 1868. The new town grew rapidly; handsome residences and substantial brick business structures were erected, and the county inland began to fill up with people at the same time. The railway prospect, as stated, was the chief stimulus to the growth of the new city; but the people soon began to give attention to the development of the resources of the county; and when it was found that patience must be had, under delay in railroad affairs, the people were prepared to exercise that virtue. No community has ever exhibited greater courage and stronger faith than San Diego, and the reward will surely be reaped by her enterprising citizens. The commerce of the port has steadily increased; good roads have been built to all parts of the interior; farms and orchards have been cultivated; mines have been opened and worked; important industries have been established; and, in spite of "hard times," the county has made steady progress in population and wealth. The contrast between the present state of affairs and that existing twelve years ago may be best shown by comparative statistics. In 1868 the total population of town and county was less than 2,000; total assessed valuation of property in town and county, $471,619. The only industry was cattle raising. The olive grove at the old Mission, a few orange trees at San Luis Rey, some scattering native fig and pear trees, and the small vineyards of the ranchos, were all that the county could show for fruit. About everything that the people consumed, aside from beef, was imported. In 1880 the estimated population of the county is 12,800; the city having 3,000. The taxable valuation of property for the current fiscal year is $5,500,000. Total acres of land enclosed in the county, 124,000; total acres under cultivation 49,594; acreage in wheat, 19,000; in barley, 11,000; in hay, 10,236; in corn, 2,000; in other products, 7,358. The wheat crop of the present season is expected to go above twelve million pounds; the barley crop about half as much. Estimated number of bearing lemon trees, 5,300; orange trees, 5,030; olive trees, 8,740; acres grape vines, 3,430. The wool clip of this year is estimated to be about two million pounds; in 1878 it was 1,050,000; in 1876, 1,837,850. A very important industry, in which San Diego county leads the State, if not, indeed, the world, is that of bee-keeping. Some statistics from the Assessor's returns as to the honey productions of recent years will be interesting: In 1873 the honey exported from San Diego amounted to 116,000 pounds; in 1875 it reached 550,000 pounds; in 1876 this was more than doubled, the exportation being 1,277,155 pounds; while in 1878 we shipped the amazing aggregate of 2,075,000 pounds of honey! The following general statistics are from the Assessor's return of last year: Live stock—horses, 3,619; mules, 325; horned cattle, 10,479; sheep, 115,429; hogs, 2816. Improvements, etc.—grist mills, steam power, 1; water power, 1; barrels flour made, 3,445; saw mills, steam power, 5; feet lumber sawed, 1,650,000; shingles made, 75,000. Quartz mills, steam power, 4; tons quartz crushed, 1,000. Miles of railroad in the county, 164½. The Southern Pacific Railroad enters the county at a point about 90 miles north of the Bay, and crosses the county in a south-easterly direction to the Colorado river at Yuma.

San Diego has always been prominently identified with the scheme of a Southern trans-continental railroad, having been pointed out as the proper Pacific terminus from the very inception of that project. In the law of Congress of 1871, chartering the Texas Pacific Company to build the thirty-second parallel line, it is enacted that this road "shall be constructed and maintained, as a continuous line, from Marshall, Texas, to ships' channel in the Bay of San Diego, California; pursuing in the location thereof the most direct and eligible route, as near as may be the 32nd parallel of north latitude." This Company holds a tract of about 5,000 acres of land on the water front of San Diego for terminal and other purposes, and declares its unchangeable design to build its line to San Diego, although construction has so far been carried on only at the eastern end. Some months ago the Directors of that important Boston corporation, the Atchison, Topeka and Santa Fé Railroad Company sent two of their number to San

Diego, to examine the facilities for extending their line on the 35th parallel from Santa Fé to the Pacific at this Bay. A provisional arrangement was made with them, by which about 5,000 acres of equally valuable water front land with that held by the Texas Pacific was set apart, and is now held pending the consummation of a definite contract. Every intelligent officer of the army who has examined the subject, and the reports of all the engineers concerning the 32nd and 35th parallel railway lines, concur in bearing testimony to the remarkably advantageous natural position occupied by San Diego. There are but two real harbors on the entire Pacific coast of the United States—San Francisco and San Diego—and San Diego is several hundred miles nearer to the Atlantic coast and to every prominent commercial center than San Francisco. A terminus at San Diego gives the shortest railway route between oceans. It is this well-established fact, of the advantage of natural position, that explains the jealousy with which the railroad anticipations of San Diego have always been regarded by San Francisco. But not only as the terminus of the shortest line of trans-continental railway is this fact of position important. Without a direct railroad to the East, San Diego, with merely a connecting branch or branches, with simply local lines of railway, must still become the second city of the Pacific coast. Because, when Southern California is filled up with population—when the people who are pouring into these southern counties are established in productive industry—the Bay of San Diego is the point through which they will most speedily and cheaply obtain their supplies of foreign importation, and to which they will most profitably send their products for exportation. San Diego is the nearest port for ships from Mexico and Central and South America, the Sandwich Islands, Australia, China and Japan, and India. With the Isthmus Canal opened, we shall always be 450 miles nearer European ports than San Francisco.

The harbor of San Diego was designed by nature for an important commerce. It is spoken of by Prof. George Davidson, of the U. S. Coast Survey, in the following emphatic words: "Next to that of San Francisco, no harbor on the Pacific coast of the United States approximates in excellence the Bay of San Diego. The bottom is uiformly good; no rocks have been discovered in the Bay or approaches; the position of the Bay with relation to the coast, and of the bar with relation to Point Loma, is such that there is rarely much swell on the bar; as a rule, there is less swell on this bar than on any other bar on the Pacific coast. There is less rain, fog, and thick haze, and more clear weather in this vicinity than at all points to the northward, and entrance is less difficult to make and enter on that account. Large vessels can go about seven miles (geographical) up the Bay with an averge width of channel of eight hundred yards between the four fathom lines at low water. This indicates sufficient capacity to accommodate a large commerce." Admiral Taylor, U. S. N., who visited the port in 1870, said "that San Diego harbor was amply capacious to accommodate twice the present commerce of the Pacific coast." Commodore C. P. Patterson, Superintendent of the U. S. Coast Survey at Washington, transmitted to the Chairman of the House Committee on the Pacific Railroads, May 10th, 1878, the results of the last survey of San Diego harbor by the officers of the "Hassler" in that year. He says: "The depth over the bar is 23 feet. The bar remains in a remarkably permanent state. The distance across the bar, from an outside depth of 27 feet to the same depth inside, is but 285 yards, so that the removal of about 60,000 yards of material would give a channel of 300 feet wide and 28½ feet deep over the bar at mean low water. I have crossed this bar at all hours, both day and night, with steamers of from 1000 to 3000 tons burden, during all seasons, for several years, without any detention whatever. As will be seen from the dimensions given, ample accommodations can be had in this harbor for a very large commerce. There is no safer harbor on the Pacific coast for entering or leaving, or for vessels lying off wharves. It is the only land-locked harbor south of San Francisco, and north of San Quentin, Lower California, a stretch of 600 miles of coast, and from a national point of view its importance is so great that its preservation demands national protection and justifies national expenditures. Fortunately, these expenditures need not be great, if the stable regimen of the harbor be preserved." This harbor compares very favorably with those of the principal Atlantic seaports. It has at mean low tide one foot more water over the bar than New York; it has five feet more than Boston; four and a half feet more than Philadelphia, and over five feet more than Charleston and Mobile.

San Diego possesses a climate matchless in the world, as the reports of the Observers of the U. S. Signal Service here, compared with observations at the most favored spots elsewhere, abundantly establish. We speak more especially of the climate of the city, for passing through the interior of the county, one can have variety in climate. There are three or four different climates within 80 miles of the Bay. The city is situated upon a plateau formed by the gently sloping character of the foot-hills, the inclination being to the south-west. The soil is dry and porous. On the north-east and south-east are the slopes and peaks of the coast range and Lower California chain of mountains; southward lies the open Pacific Ocean, separated from the waters of the Bay by the long, narrow spit of land which forms a natural break-water, making the most perfect and absolutely safe harbor on the entire coast; on the west is the peninsular extension from the mainland which forms the western boundary of the entrance to the Bay, and breaks the force of the prevailing wind from the Pacific. Situated thus, the city of San Diego has the most equable temperature known among the dwelling-places of civilised men on the face of the globe. The mountain tops on the north may glisten in their robes of snow; the atmosphere may glow with fervid heat in the Colorado Desert on the east; yet the resident of our city, dwelling but fifty miles distant from mountain top or desert depression, enjoys the same delightful temperature, with scarcely a perceptible difference between winter and summer, wears the same clothing, and sleeps under the same covering, the year around. The temperature of San Diego has a yearly mean of 62 deg. For the spring months, 60 deg.; summer, 71 deg.; autumn, 64 deg.; and winter, 56 deg. The yearly mean temperature of the water in the Bay is 66 deg. The average annual rainfall is about ten inches, with less than 50 rainy days in the whole year. And here the most of the rain falls at night; there are very few of what Eastern people would call "rainy days." There is no mud; after the heaviest rain the surface of the ground dries in a few hours; this being due both to the character of the soil and the natural slope of the land. The late Professor Agassiz, who visited San Diego in 1872, spending some time here, and studying the records of our climate in the Signal Office with great interest, pronounced our climatic advantages unequalled in the world. "Your climate," said he, in a brief public address, "is your great capital. It will be worth millions to you as it becomes known." Sure it is, that, given the railway connections that cannot now be long deferred, the thousands of invalids and rest seekers, who now expensively sojourn in Florida, Cuba, Italy, and France, will turn their steps to San Diego, and find life and vigor in this glorious climate, and the great Professor's words will be realized.

PROFITS OF FRUIT DRYING.

The question is often asked what is fruit worth to dry, and what is the expense of drying.

The lowest capacity claimed by Mr. Plummer the patentee of the Plummer Dryer, is for his factory size 300 pounds of apples or 210 pounds of peeled peaches per hour. At this rate the production of dried fruit for each day of fourteen hours is 525 pounds of dried apples, or 420 pounds of dried peaches. The expense of running one day is, for four hands and about one-sixth of a cord of wood; total five dollars per day or about one cent per pound. The expense of drying peaches is about one half more where peaches are peeled.

The present prices of Plummer dried apples are 12 to 13 cents, for peaches 23 cents wholesale. It requires eight pounds of apples to make one of dried, and seven of peaches to make one dried.

This makes apples worth 1½ cents per pound and peaches three cents net at the orchard.

PASADENA.

HOW WE CAME TO CHOOSE IT FOR A HOME, AND WHY, AFTER A SIX MONTHS' TRIAL, WE NOW FULLY JUSTIFY AND ARE PERFECTLY SATISFIED WITH THAT CHOICE.

By Asahel Foote.

Messrs. Editors: To the great surprise of all and against the remonstrances of many of my Massachusetts friends, I have, in this fast-fading twilight of my life, bidden adieu to the few surviving associates of my earlier years, cast a last, regretful look upon the graves of the dear departed ones, and turning my back upon the endeared, familiar home of half a century, come to find a new and all untried one in this sunset land. A single motive has impelled me to this measure—the hope of promoting the comfort, at least, if not of prolonging the days of an invalid member of my family—a hope inspired by the fame that had long since reached us, but latterly with increasingly emphatic distinctness, of the mildness, serenity and salubrity of the climate of the Pacific coast, and especially of Los Angeles county. A very dear friend of ours (now deceased), who, both by study and travel, had acquainted himself with the finest climates in both hemispheres, had expressed a preference for this county, as equal, in this regard, if not superior, to any other locality on the globe. The first casting abroad of our inquiring eyes, therefore, upon forming the resolution to seek a new home in some far southern locality, where the rigors of Northern winters could never more annoy us, was in the direction of California. It was a piece of great good fortune to us that, at that time, we had a number of acquaintances and friends—all persons of intelligence, candor and discriminating judgment—residing in different portions of this commonwealth, particularly at San Francisco, Sacramento, San Bernardino, Ventura, Riverside and Pasadena. With these we opened, at once, an earnest correspondence on the vital question that was by this time wholly engrossing our attention, not omitting, however, to avail ourselves meanwhile of every other source of reliable information. After many months of anxious deliberation, guided and controlled by the knowledge thus acquired, our inquiries became narrowed down to only two localities—*Riverside and Pasadena*; and, after a considerable period of further oscillation between these two, the scales turned finally in favor of the latter. Thither, on one of the last days of October, 1879, we directed our way, and here, on the 3rd of November, we entered our new California home, "all safe and sound." And now, after a full half-year's acquaintance with our new home and its environments, I suppose it is to be considered quite in order to be "put upon the witness stand," and answer the interrogatory, "And how are you pleased with the general situation, and the prospects, as far as developed?" *Right well.* True, our equanimity has been slightly disturbed by two or three little interludes that were "not in the bill"—as the very uncomfortable depression of the mercury, for a few days, during an abnormal winter; the rude manner in which we were shaken from our slumbers one morning, not long since, by the tossings, in his uneasy bed, of a stalwart young earthquake; and still later by the pranks "a grizzly" played one night among our neighbor Gidding's beehives, for which speedy justice overtook him at the mouth of the offended apiarian's rifle. But "all is well that ends well." The earthquake shock ended well, the grizzly panic ended well, the tedious winter has ended well in a genial spring; and though sundry lime trees and lime stocks have settled by their deaths the Darwinian theory of the "survival of the fittest," no irreparable harm has been suffered. And since that most venerable and most veracious of all humans, "the oldest inhabitant," has assured us that the conduct of the past winter has been "all a mistake, not likely to occur again in a life time," we feel quite reassured, and our faith remains unshaken, our contentment unimpaired. Among the solid foundations of this state of contentedness, I will speak,

First, of the Climate.

Climate is a comprehensive, generic term, including in its idea the aggregate of all atmospheric conditions; and is termed hot or cold, damp or dry, sickly or salubrious, etc., according to the preponderance of one or another, or of several of these influential conditions, and the presence or absence of miasmatic and malarial exhalations from disease and death-engendering marshes. The most perfect climate, doubtless, is that in which respiration is freest, in which violent muscular exercise is attended with the least inconvenience and fatigue, and in which all the mental and bodily faculties derive the greatest enjoyment from their appropriate employments. That such a climate prevails in Southern California, and especially in elevated localities at the bases of the foot-hills, experience has proved. Dry, pure, slightly saline, oscillating daily, with great regularity, between the Sierras and the Pacific, freighted both ways with a wealth of tonic preparations materia medica cannot furnish, our atmosphere is one that, by its exhilarating and invigorating properties, gives elasticity and buoyancy to the spirits, solidity and tension to the muscles, firmness and steadiness to the nerves, determination and constancy to the will, alacrity and energy to all the executive faculties of both mind and body, and, in short, to the whole life reality and meaning. Said an invalid lady to us, after a year's experience of the climate here: "I would not exchange the air I breathe here for all the wealth of my native city." Said a hard-working day-laborer to me: "I can labor with more comfort here under a temperature of 120 degrees, than I could at the East with the mercury at ninety." In a conversation I had two years ago with Chief Justice Allen, of the Sandwich Islands, he admitted that Los Angeles county possessed *one* of the finest climates in the world, but was inclined to make an exception in favor of those islands, informing me, however, in another part of our discourse, that he had been obliged to leave that delightful part of the world "on account of Mrs. A.'s health, which suffered from *the enervating* effects of that climate." I have witnessed or heard of no such effect produced here on any constitution, delicate or robust.* Our people are strong to labor, full of Anglo-Saxon vim and pluck, don't know how to say "can't," never afraid to "take the bull by the horns," always ready to "do or die."

Secondly, of our Scenery.

The marvellously varied features of the face of nature, as viewed from this point (which lies at the foot of the Sierra Madre range, and at the "head of the fat valleys" of the San Gabriel), present to the eye a combination of awful sublimity, rugged grandeur, savage wildness, and simple, meek, harmonious beauty and charming repose that cannot fail to produce in musing minds that spirit of "calm contemplation and poetic ease," that happy equanimity—equally removed from passionate and fretful haste and worry, on the one hand, and listless indifference, apathy and inaction, on the other—in which is found the true "golden mean" of life, the very "philosopher's stone" of human felicity. From the tiniest microscopic flower, that, nestling closely to its mother's bosom, barely lifts its meekly smiling face above the sod to meet the smiles of its kindred skies, and join in animated Nature's universal hymn, "The hand that made us is divine," up through all the intervening ranks of Flora's gaily decorated myriads, to the autocratic Agave, that lifts its ostentatious head on high and offers its more pompous worship to the same Creator; and from the heaven-menacing summits of San Antonio, San Bernardino, and San Jacinto, over their sheer backbones and ridges, with their corrugated and precipitous sides, down through the mid-earth craters and canyons to the mesa lands, the grain fields, the broad vineyards, and the never-fading citrous orchards, till your weary feet rest on that most delightful of all carpets—the little grassy lawn before your own door; no link in the enchanting chain is wanting. I have been privileged, in the course of a somewhat lengthened life, to look upon very beautiful pictures of natural scenery, in a score of our United States; but never have I met with another locality in which, from a single stand-point, I could cast my eye over such an extent and variety of charming scenery as I daily *feed* upon in Pasadena.

In the third place:

The *soil* we tread, and from which we draw our sustenance, though sometimes disagreeably *tempered*—either *too plastic* or *too rigid* to suit either the pedestrian on the road or the cultivator in his field—is,

* That "sun-stroke" is unknown in this climate, and that all difficulties with the respiratory organs here find relief, are facts of great value in establishing the sanative superiority of our climate.

for the most part, fine in its texture, rich in all the elements of plant food, and worked with great facility and effect, if taken at the proper moment of moisture or dryness—in seizing upon which at just the lucky moment lies an important art of the skillful cultivator, and much of the probability of a successful result. Taken at its most friable stage, it is worked with ease to man and beast, and a fine tilth is produced, easily permeable by the sun and air and upper and under moisture, and ready to furnish abundant nutriment to the herbage that clothes it, or the fruit trees whose rootlets roam in it for forage. Take it in the reverse condition, and the result will correspond, of course. That our soil is a "fat" one, and eminently capable of growing "fat things," may be inferred from a few facts. To the Brobdingnays of the Beet and Pumpkin families, whose praises are sung in the papers to—not the tune of "Old Hundred," but to the tunes of 200, 300, and even 400 lbs., I will not invite your attention, but introduce to your notice a few plants grown on my own premises. In December I had taken up a row of some 40 eucalyptus trees. One of these (barely "primus inter pares"—*first among its equals*) I measured accurately, and found its base diameter to be eighteen inches and its height seventy feet. These trees were but four and one half years from seeds, as one who assisted in planting them informed me. If any one is disposed to regard this as "a fish story," let him call round and examine a section of the tree which I have "put in pickle." At later dates I have applied my tape to *a branch* of a sweet elder "bush," near my house, 18 feet in length; to a last year's mustard stalk, more than 12 feet high; and to a stalk of mallows which now measures nine feet and over, and is still stretching itself towards heaven at the rate of an inch or more per day. Now, a soil that will push vegetation after this fashion is *good enough for me*. If any one thinks he can show better, let him forward a bottle or two of it, and I will ask Prof. Hilgard or Dr. Congar to *try out the fat* of it and report the per centage.

In the fourth place:

Our *Food Supply* is abundant, of excellent quality, in large variety, and obtainable, for the most part, at satisfactory prices. Dairy products and groceries rise somewhat above the level of Northern and Eastern markets, while flesh, fish, wild game, vegetables and fruits fall as much below. Beef and mutton are here exceptionally fine, acquiring from the indigenous herbage of the country (mostly of the clover family, in half a dozen varieties) a delicacy of flavor rarely met with elsewhere. The flocks of sheep to be seen in Los Angeles county are truly a "sight to behold," many of them numbering their thousands, several their tens of thousands, and one or two their scores of thousands. A most creditable gentleman of my acquaintance, familiar with the party, ascribes to one super-eminent wool grower, residing in Los Angeles, the ownership of a flock of *fifty thousand*. The ewes, dropping their lambs twice in each twelve months, give a very rapid increase; and pasturage on Government "commons" and on old, overgrown Spanish and Mexican "claims," that are rented for a song, make all the products of the "sheep ranch" exceptionally cheap. Hence we obtain the very choicest of mutton at from 25 to 35 cents the quarter, 60 cents the side, or $1 20 the whole carcass. Vegetables and fruits, in nearly all the varieties known to semi-tropical and temperate latitudes, growing here almost spontaneously, form a very cheap, palatable and wholesome adjunct to the grosser and more costly articles of diet, and serve greatly to promote the health and comfort of the dwellers in this climate. From the citrous and deciduous orchards (including several of the choicest nuts, as the English walnut, the Italian chestnut and the almond), and from the strawberry, raspberry, blackberry, melon and guava patches, something toothsome for "the last course" at dinner (and at breakfast and supper to boot, if one chooses) may be drawn *fresh from the stems* by far the greater number of days in the year; and for those which remain, a generous stock of dried, preserved, pickled or canned fruits is always at hand. And as for *water*, that indispensable diluent of our food, we have but to turn our faucets, at or within the door, to help ourselves to as pure and wholesome an article in that line as was ever distilled in the caverns of a snow-capped Sierra.

In the fifth place:

Our "*Main Chance*," by which I do not mean a chance to fill a plethoric purse (for I have a great leaning towards Shakespeare's notion on that point, that "Who steals my *purse* steals *trash*"), but to the opportunity and means of providing, by an intelligent, persevering, honest industry, that frugal life-support which best accords with our animal nature ("For Nature's wants are few, and easily supplied"), and of giving to our intellectual and moral natures that culture on which chiefly depend all human usefulness and happiness. Our means, as a community, for the attainment of these ends, lie almost exclusively within the apparently narrow limits of a *single specialty*, to wit, *fruit culture*. That God has laid for us, in nature, ample foundation for the largest success in this most attractive of employments, there is no room left for doubt. Our climate is suitable, our soil is all-sufficient, the most perfect appliances in the way of tillage implements are at hand, and we are, as a community, "strong to labor." Let us but resolutely apply our forces, intellectual and physical, to the work that is needful to be done in this direction, and we cannot fail of realizing assured success. But a single important desideratum appears to me now remaining, to render our success certain, and that is *adequate commercial facilities*. But our *commercial necessities*—*i.e.*, the commercial necessities of Southern California—are increasing rapidly, with the rapid developments of our mineral, agricultural and horticultural products. Is it not to be confidently hoped that this increasing tide of business will soon break down the barriers that now *shut us out*, and *let us in* to the open markets of the world. To this end let us look, and for this end let us courageously labor.

In the sixth place, I come lastly to that which is first in importance—the social, moral and religious character of the people, with which our own, in a general way, is to become identified. Regarding this, we had made careful inquiry before consummating any purchase here. We were happy to be informed that in this respect the youthful "colony" of Pasadena would suffer nothing from a fair comparison with the general average of New England towns. We have found this information verified by our own personal observation. Though our population includes representatives from every section of our own country, from the British Isles and from Canada, we know of no individual that has brought with him a vicious character or a doubtful reputation. The fact of a small community like this having, in its very infancy, made so ample provision for the intellectual, moral and religious improvement of its members, furnishes invaluable testimony to the high quality of its population. Said a gentleman of high standing, long a resident of this county, in a recent conversation with me, "I know of no place in California that can boast of a more intelligent and moral, industrious and thrifty population than Pasadena." With but little external display in architecture, equipages, furniture, etc., we find an unexpected degree of cultivation and refinement, and of all that comity towards each other, and those kindly attentions to strangers that have such a charm for new comers, and that tend so greatly to promote the peace of neighborhoods and the happiness of entire communities. Kinder neighbors, more quiet neighborhoods, or a more contented and happy people, it has not been my good fortune to meet with. In a six months' residence here my eyes have not yet been disgusted with the sight of a drunkard, nor my ears pained with the hearing of a single oath. What parish in New England could boast of a cleaner record? May all that have been instrumental in the production of so exemplary and so happy a community reap not "thirty," nor "sixty," but "a hundred fold" for "the precious seed" here sown by them.

I will close with an incident. At the last annual meeting of the American Pomological Society in Boston, the members, by invitation (and at the expense) of the proprietor, paid a morning visit to the celebrated Hunnewell "country-seat," (pronounced by our president, M. P. Wilder, "the finest in America"), located at Wellesley, 18 miles from Boston. After spending a couple of hours in examining the grounds, and partaking of a generous collation, a friend of mine ejaculated, as we were leaving the premises, "Well, I do not know certainly that I shall be so

happy as to ever see Heaven, but I can say now that I have been blessed with a sight of Paradise." I am disposed to borrow my friend's language, and apply it to Pasadena and its environs.

PASADENA, May, 1880.

Apiary Department.

EDITED BY N. LEVERING.

EXTRACTED AND STRAINED HONEY.

Commercialists, as a general thing, in nearly all their commercial reports quote all liquid strained. This is a great error, and should be corrected, among commercial men as well as a large majority of consumers. There is a wide difference between strained and extracted. Strained honey is that which is filtered or pressed through cloth, which was the primitive way of straining honey. Now, under the present improved method, it is strained by means of a sun extractor, which consists of a three-square box, one foot or more deep, lined with zinc or tin, a strainer of like metal fitted in the box, about midway from the top, upon which is placed the comb, fragments, etc. The top is covered with glass (a common window sash), which attracts the heat of the sun, causing the comb to melt, and honey, wax, bee bread, dead bees and all to run or mix together, destroying the original flavor of the honey; the wax passes through the strainer below, where it cools, and the honey is drawn off by means of a gate at the lower end of the extractor. Honey thus strained partakes more or less of the flavor of bee bread, dead bees and other impurities with which it comes in contact. The honey is regarded by all proper apiarists as unfit for market, and is reserved to feed young or weak colonies in the winter or early in the spring. Extracted honey is that which is thrown out of the comb by centrifugal force with a machine known as the "Mel Extractor," and does not come in contact with bee bread or any other foreign matter—leaving the honey strictly clean and pure as the nectar of the gods. As well might forty-rod whisky be compared to the sparkling waters that well up in the fields of paradise, as to compare extracted honey to strained. We point out the distinction in order that commercial men and others who read this may see the propriety of calling things by their proper names.

GRADING HONEY.

The manner of grading honey is another error that the American people have fallen into, and should be corrected. In this country, among both traders and consumers, honey is universally graded by color, while in Europe it is graded by flavor, which is the proper method. There is much light-colored and beautiful-looking honey made that is of very indifferent flavor, so much so that it is unpalatable; but much darker that is of pleasanter flavor. When honey becomes more of a staple article of diet in this country, as it now is in Germany and other European countries, it will be graded on this plan. People prefer appearance to real worth or value. A more general use of honey will doubtless correct this error.

HONEY CAKE.

It is a prevalent opinion that honey can not be used as successfully in the culinary department as sugar, especially in making cake. The large and delicious honey cake recently presented us by Mrs. Josephine Benedict convinces us at least that this is a great error. The cake referred to was as light and spongy as any that we have seen made with sugar. Through the kindness of this lady, who is second to none as a cake maker, we are permitted to give her recipe for honey cake to the public. Here it is:

One pint of honey; half pound butter; two eggs; half pint sour milk; half teaspoon-full soda; flour enough to make a stiff batter.

This, ladies, is the mother of E. P. Benedict, who has been so successful in making an excellent sugar out of honey. With our hat under our arm, and our best bow for the cake, we say success to the Benedict family in their efforts to utilize honey.

The extracting season is now commencing. The honey extracted in our apiary so far is of a light straw color and pleasant flavor; is gathered from wild alfalfa and various other bloom. It is delicious, and when applied to pancakes causes them to slip down the neck like oil down Aaron's beard. The black or ball sage is now blooming, and will afford honey of improved flavor and color.

SOUTHERN CALIFORNIA has about one thousand "bee men," and one of them, who is well posted, informs us the entire crop will reach nearly four million pounds. At six and one-fourth cents per pound, this will bring 250,000 dollars in coin. The busy little bee is an institution worth having.

A SMALL HONEY TANK.

By invitation of Mr. L. S. Butler, of the firm of Butler and Sims, Verdugo Canyon, apiarists, we inspected the largest honey tank we have ever seen. It is built of two-inch scantling, and resembles a high water-wagon with a roof. The dimensions are fourteen feet long, four wide and three feet six inches deep, with a capacity of 14,000 pounds of extracted honey.

The roof is solid plank on one side and glass on the other; the ridge pole six inches wide, covered with gauze wire.

One end of this tank sets in the honey house, under the extractor, so the honey can be run into the tank by turning a faucet. The tank extends outside the honey house, with the glass side of the roof facing the sun, causing an evaporation to take place before the honey is drawn off into cans, ready for market. As for the benefits to be derived from this process, we shall speak at length in a future article. Messrs. Butler and Sims expect to fill this immense tank four times this season, and this is not a good honey year, either.

THE APIARISTS of Southern California are taking active steps to make the largest and finest display of honey at the Southern California Horticultural Fair this fall ever made in the world.

FRUIT DRYING.

A crop well grown is only half way to market. The profits of fruit raising are not all in producing the best quality, but in selling to the best advantage. The great trouble here, in Southern California, has been in not receiving a fair price for fruits. Our solution of this question is—dry much of your fruits, and sell when you get ready at a good price.

It has been carefully estimated that when three-quarters of a cent. per pound is paid for fruit, it is worth two cents to the seller to dry it himself, and pay good working wages for his labor. This is a low estimate, and with the prices that have been paid during the last year, a very handsome profit can be made by the fruit raiser by drying and selling when the market price and demand will justify him.

The market and demand for well-cured fruits is and always will be good. Here, in Southern California, we are especially favored, on account of the large trade we are now having from Arizona and other mining districts of the south-west. This demand will be largely increased during the coming year, and prices will be correspondingly high.

Our advice to every fruit grower is this: Sell your choice fruit green, if good prices are offered; otherwise, dry all your fruit yourselves at home. Put your children to work, and help them every spare moment. We would especially caution every one to do their work in first-class shape, so that their fruit will be in number one marketable condition.

A fruit drier is one of the requisites of success in preparing dried fruits for market; hand-dried fruit does not sell so readily nor for as good a price.

A neighborhood might combine to buy a Family fruit drier, and more than pay for it the first year, in the increased profits derived from the sale of their fruits. For it is a conceded fact that machine-dried fruits are superior in all respects to sun-dried. The rapid process retains their flavor; there is no chance for the dust, trash and other uncomestibles so often found in our dried fruit; and by the general adoption of this method, our product of clean, fresh, choice dried fruit might be made equal to the unsatisfied and increasing demand.

We can recommend the Plummer Dryer as the best machine of the kind now made. Persons who contemplate utilizing their fruits and making some money from their orchards would do well to see or write to Ogilvie and Eames, Los Angeles, the agents for this county.

THE

San Francisco Bulletin,

THE

Leading Evening Newspaper West of the Rocky Mountains.

SUBSCRIPTION RATES.

Daily Bulletin, one year	$12 00
Weekly and Friday Bulletin (making together a complete Semi-Weekly)	3 00
Weekly alone, one year	2 50

Parts of a year in proportion.

FREE SEED DISTRIBUTION.

Each subscriber will be presented with several varieties of Rare and Valuable TREE, VEGETABLE and FLOWER SEEDS, equal in value to the subscription price of the paper.

☞ Send for Sample Copy, giving full particulars.

Remittances by Draft, Post-office Order, Wells, Fargo & Co's Express, and Registered Letter, at our risk.

Address

S. F. BULLETIN CO.,
San Francisco, Cal.

D. M. GRAHAM,

Land and Loan Broker,

Is prepared to place loans on real estate security at current rates of interest without delay.

Rooms 7 and 8, Commercial Bank Building,
Los Angeles, California.

The Pasadena Land-office.

The climate, soil, water, system, beautiful scenery, special and general advantages of Pasadena are now too well and widely known to require any puffing at my hands. See and you will believe. I can offer you, in all parts of the country, your own kind of land, at your own price, from $5 per acre, upward; and I will take pleasure in showing you about the country.

D. M. GRAHAM.

FIRST-CLASS

NURSERY STOCK!

We offer to the public a Large and Choice Selection of everything usually to be found in a nursery, at

Bed Rock Prices.

In preparing our stock for the market we have had the reputation of our nursery in view, as we are one of the permanent institutions of Southern California. We expect to build up a future business on the merits of our goods. We invite correspondence, and will send catalogue free to any address.

FISHER, RICHARDSON & CO.,
Los Angeles

NURSERY: Cor. Washington and St. Pedro Sts.
SALES: Spring St., opposite Postoffice.

F. P. RAMIREZ,

Attorney at Law,

72 TEMPLE BLOCK, Los Angeles.

WATERMAN'S

HOT MINERAL SPRINGS.

This Delightful Resort is now open to the public. It is situated in the foothills, six miles from San Bernardino, California. Altitude, 1750 feet above the sea level, as given by Lieut. Wheeler's Engineering Corps. The climate is highly recommended for

Asthma, Throat and Lung Diseases.

And the waters are good for Dyspepsia, Rheumatism, and kindred diseases. For further particulars, address

R. W. WATERMAN,
Proprietor.

PURE

And Unadulterated Candies, made fresh every day at the

LOS ANGELES CANDY WORKS.

Spring Street, Los Angeles.

A pure, healthy article of candy is seldom to be found. This house pride themselves on the purity of their stock. Ladies' lunch-room attached.

SPLENDID FLOWERS

Over 1200 distinct varieties. All strong Plants, each labeled, delivered safely by mail. The **largest assortment. Low prices.** In business for **28 years.** *Satisfaction guaranteed.* Stock comprises *all desirable varieties.* Only mature plants sent. Our new **Illustrated Hand-Book,** sent free, contains name and description of each plant, with instructions for successful cultivation. *Do not purchase Plants elsewhere before sending for our new* **HAND-BOOK** Every lover of *flowers* should have it. Every buyer of *cheap plants* should have it. Every one wanting *new* and *choice plants* should send for *our Hand-Book.*

HOOPES, BROTHER & THOMAS,
CHERRY HILL NURSERIES, West Chester, Pa.

SAWING THE LOG.

THE GREAT SUCCESS OF THE WONDERFUL IMPROVED

Labor Saving **RIDING SAW MACHINE** is fully demonstrated by the number in use and the present demand for them. It saws Logs of any size. **One man** can saw **more** logs or cord wood in one day and **easier** than two men can the old way. It will saw a two foot log in three minutes. **Every Farmer needs one.** Township agents wanted. Send for Illustrated Circular and Terms.

Address W. W. BOSTWICK & CO.,
178 Elm St., Cincinnati, O.

GIVEN AWAY

New Scarlet Striped Geranium

NEW LIFE!

Its most, paid. To any one sending us **$1.25** for 5 plants of this Geranium, we will add a plant gratis. A single plant mailed free for **40c.** ☞ Our Catalogue containing Colored Plate of above Geranium free. We also send by mail, prepaid, **12 Ever-Blooming Roses,** Rooted, and labeled, for **$1.25.**

INNISFALLEN GREENHOUSES, Springfield, O.

Poultry.

TURKEY RAISING.

It is just as easy to raise fine, large and healthy turkeys, if the proper course be pursued, as it is to worry over a lot of puny birds all the season, and then have them only attain to about half the size they otherwise would. The best plan to raise turkeys successfully and profitably is on a grain or grass farm, where they can have a good range. Turkeys kept housed will not do well. They cannot bear confinement. It is natural for them to roam about, even while young, in search of bugs and flies. The best mother is a turkey hen; she will cover her chicks well.

It is much easier to raise turkeys here in California, if hatched after the rains are over, than in the East. For breeding stock, select a large, well formed and early hatched young gobbler, and, when it can be done, have your hens two years old at least. They will lay better, set steadier, and are far better mothers, while the young are invariably hardier than those from last year's hatch. If good, strong stock is selected, turkey raising in California is very easy, and especially profitable where *bronze gobblers* are used. A young *bronze* gobbler running with a dozen common hens will add an average of five pounds to the weight of each chick hatched the first year, while the young turkeys will be stronger and more easily raised, besides bringing a greater remuneration to their owner when marketed.

In some portions of this State, flocks of from 1,000 to 5,000 are raised by one owner. The young require nothing but warmth for the first forty-eight hours. Turkeys hatch in twenty-seven or twenty-eight days. If young turkeys are fed at all, they should be fed with soft food, not *wet* food, and often. For the last feed, given early in the evening, I prefer broken wheat. They are very fond of curd, or cottage cheese, or smearkase; it is good for them. I know some parties who consider that their success in raising young turkeys is due to a free use of the above. For drink, fresh and sweet milk is preferable to water. Do not let it sour in their drinking vessels. Corn meal, mixed with the liquid in which meal has been boiled, is a good food. Onions chopped fine are very desirable for poultry, especially so for young turkeys. One of the greatest enemies of chicks is the large or head louse. To prevent and remove this pest, anoint the head of each young turkey with lard or butter. Some use coal oil, but that is too heroic treatment. Dust your turkey hen well with carbolic powder when you set her, and repeat a few days before time for hatching. Follow a similar course with chickens.

WILLIAM NILES.

PLANTS GROWN

for transplanting, and Fruit for the market.
100 Acres planted with Berries **100**
Varieties of Selected Fruits
See New Catalogue for what sorts to plant. Sent free.
JOHN S. COLLINS, Moorestown, N. Jersey.

THE CHEAPEST

—AND—

BEST

GROCERIES

—AT—

GEO. D. ROWANS,

Baker Block,

Los Angeles, Cal.

LOS ANGELES ACADEMY.

THE courses of study embrace the Regular Academic Course; Commercial and Business Course; Normal School Course; Latin, French, German and Spanish Languages, Vocal and Instrumental Music, Painting and Drawing.

O. S. FRAMBES, Principal.
S. E. FRAMBES, Preceptress.

Location: Main Street, bet. Third and Fourth.

JOHN WAUGAMAN'S
GOLD DRY WASHER.

Factory and Exhibition Rooms, Requena St.

THE only successful Dry Washer ever invented. Capacity, twenty tons in ten hours, with a saving of *ninety per cent.* of all the gold in the gravel that is milled. The machine weighs 150 pounds, and will be made to order promptly. Placer miners will do well to call and examine this wonderful machine. 17.

CONGRESS HALL
Oyster Saloon and Restaurant,

Corner of Main and Requena Streets,

OPPOSITE THE U. S. HOTEL.

THIS popular resort has been established since 1872, and has at all times been considered one of the most complete establishments on the coast where ladies and gentlemen can dine and receive the best of attention. Eastern, California and Puget Sound Oysters are served in all styles, in the most faultless manner. Oysters sold to dealers, wholesale, at San Francisco prices.

JOE BAYER, Proprietor.

L. LICHTENBERGER,

Manufacturer of all kinds of

WAGONS, CARRIAGES, ETC.,

Main Street,
Los Angeles, Cal.

The best kind of work guaranteed.

DILLON & KENEALY,

DEALERS IN

Staple and Fancy Dry Goods.

All the latest novelties and new styles received weekly.

We invite you to call and inspect our goods and prices.

MAIN STREET,
Los Angeles, Cal.

RUDOLPH WEINHOLD,

FLORIST AND NURSERYMAN.

LOS ANGELES, CAL.

J. H. WOOLLACOTT.

—DEALER IN—

JESSE MOORE & CO'S.

LOUISVILLE, KENTUCKY.

Fine old Bourbon and Rye Whiskies,

by the bottle and gallon a specialty

Imported Wines, Brandies, etc., English Ale and Porter,

FINE NEW YORK CIGARS.

40 SPRING STREET, MOORE BLOCK, LOS ANGELES, CAL.

JOHN C. OLMSTED,

Dealer in

BOOKS, STATIONERY,

AND FANCY GOODS,

No. 36 Main Street, (Op. Cosmopolitan Hotel.)

LOS ANGELES, CAL.

BRANCH STORE AT SANTA MONICA.

WALTER S. MAXWELL,

COMMISSION MERCHANT,

AND DEALER IN

Wool, Grain and Live Stock,

36 Spring Street,

Los Angeles, Cal.

THE PLUMMER
Patent Fruit and Vegetable Drier.

Reasons why it is the Best.

1. Most durable.
2. Simple to operate.
3. Most economical in fuel.
4. Fruits and vegetables dried by it command at highest market price.
5. Flavor, color and condition of fruit unrivaled.
6. More fruit can be dried by the Plummer in proportion to its cost than by any other.

An evidence of the superiority of the Plummer is seen in the fact that it received the highest award and medal at the Paris Exposition, 1878, Centennial medal, Philadelphia, 1876; three gold medals at the State Agricultural Society, Oregon, (one each year since patented) and silver medal for dried potatoes. And silver medal awarded by the Southern California Horticultural Society, 1879. Also medals and diplomas of highest award at numerous other places exhibited.

Over 1000 of these Driers already in operation on the Pacific slope since patented in Oregon three years ago.

For price, descriptive catalogue of Family and Factory Drier, address,

OGILVIE & EAMS,

Box 128. Los Angeles, Cal.

Cash Dry Goods House,

Your Patronage Solicited.

Good Goods.
Uniformly Low Prices.
Call and Examine.

—Also—

Men's Furnishing Goods.

Special Inducements in

Linen Bosom Shirts and Underwear.

Always glad to show goods.
Respectfully,

B. F. COULTER,

No. 32 Baker Block, Los Angeles, Cal.

Harper, Moore & Co.,

110 Main Street, Los Angeles.

Call on us for

Hardware, Tinware, Stoves,
Agricultural Implements,

And

Averill Mixed Paints.

Plumbing, Tinning and Gas Fitting done on short Notice.

Well and Water pipe always on hand.

Give us a call and we will save you money.
Respectfully, HARPER, MOORE & CO.

E. NAUD. O. G. WEBER.

E. NAUD & CO.

WINE GROWERS

—AND—

Wholesale Liquor Dealers.

California Grape Brandy in Bond.

Sole agents for the Whiskies of G. H. Chase & Co., Louisville, Ky.

G. W. MORGAN,

REAL ESTATE AGENT.

Room 11 (Up Stairs),

POST-OFFICE BLOCK,

LOS ANGELES CITY.

The oldest Real Estate Office in the city. Furnish horse and carriage and show property.

Markets.

Retail Groceries, Etc.

Butter, Calif.				Rice	9	@	
Choice, lb	20	@	30	Yeast Pwdr, doz	50	@	2 00
Cheese	15	@	20	Can'd Oysters,			
Eastern	20	@	25	doz	1 75	@	3 50
Lard, Cal	8	@	10	Syrup, Bl'ck'n	80	@	1 00
Eastern	15	@	20	Dr'd Apples, lb		@	15
Flour, ex. fam				Gr. Prunes	12½	@	
bbl	6 20	@	7 50	Figs, Cal		@	10
CapitolMills,				Peaches	10	@	20
¾ cwt	3 20	@		Oils, Kerosene	25	@	50
Pion'r ¾ cwt	2 60	@	2 80	Honey	15	@	20
Superfine, do		@	2 70	Do	10	@	12
Graham 50-lb				Extracted	8	@	12½
sack		@	1 45	Bacon, Cal	8	@	10
Buckwheat		@	45	Hams, do	9	@	12½
OatmealCal, 10-				Eastern	15	@	17
lb sacks		@	55	Potatoes, ctl	90	@	....
Eastern do		@	75	Onions, ctl		@	4 00
Corn Meal, lb	1c	@	1½c	Beans	1 80	@	2 50
Sugar, w. crshd	12	@		Butter	1 40	@	1 50
Light Brown	9	@	10	Lima	5 00	@	6 00
Coffee, Green	20	@	35	Fresh Beef	5½	@	6½
Tea, Fine Bl'k	50	@	1 00	Round steak	00	@	8½
Finest Jap'n	50	@	80	Sirloin	10	@	12
Candles, Admte	15	@	25	Porterhouse	12½	@	15
Soap, Cal	8	@	10	Chickens	5½	@	4½

SUNBEAMS.

RAISIN GROWERS are invited to call at this office, and inspect several complete sets of labels and box linings for raisin boxes from the printing establishment of A. L. Bancroft & Co. We pronounce them the handsomest labels ever produced in this or any other country. Every man who intends to put up any raisins should see these labels, and by clubbing together, can buy at very low prices. The lot embraces a variety, and each community could have its own peculiar kind, with their trade marks and names of individual growers handsomely printed on them.

IN another part of this issue we give a fine cut and description of the well known "American Cash Store;" C. W. Gibson, proprietor. The article was written several weeks since, but its publication delayed from unavoidable causes.

It gives us pleasure to add to-day, that we learn already of the rapid success of Mr. Gibson in his new sphere at San Francisco. His present success adds *one* more proof of the soundness of the principles he advocates, under almost every circumstance, at any time and place.

"Pay as you go" will carry the day. He is being already liberally patronized by the trade all over the country, giving at the same time his retail concern in our city the full benefit of his wholesale purchases.

Merchants and consumers will both undoubtedly gain by following his course, and by a more universal adoption of the cash system.

Mr. Gibson's present quarters at San Francisco are at 205 Sacramento Street, where he will be pleased to meet his friends.

FOR SALE.

20 ACRES in Arlington Tract, Riverside, San Bernardino Co., Cal. Four-room dwelling, 250 orange and 50 deciduous trees. Price, $1800.

GEO. M. FRINK,
Riverside, Cal.

Will be mailed FREE to all applicants, and to customers without ordering it. It contains four colored plates, 600 engravings, about 200 pages, and full descriptions, prices and directions for planting 1500 varieties of Vegetable and Flower Seeds, Plants, Roses, etc. Invaluable to all. Send for it. Address,

D. M. FERRY & CO., Detroit, Mich.

R. G. CUNNINGHAM,

DENTIST,

74 Main Street,

Lavfranco's Building. Los Angeles, Cal.

The old adage, "the best is always the cheapest," will apply to no article with greater force than to Seeds. Nothing is quite so worthless as poor Seeds. D. M. FERRY & Co., of Detroit, Mich., seem to be one of the very few firms engaged in the Seed business who have fully realized the importance of putting up and selling only the freshest and best of all varieties of Seeds; and as a legitimate result their brand of Seeds has become exceedingly popular all over the land. We take pleasure in referring to their advertisement in our columns, and would advise all our readers who will be likely to require Seeds, to send and obtain their beautiful catalogue giving prices, instructions for planting, etc.

A Valuable Industry. — The Los Angeles Woolen Mills, located on Pearl street in this city, are at present doing a fair business and deserves the patronage of all of our merchants. Through the courtesy of the proprietors we recently inspected the building, the machinery and the goods manufactured, and we feel safe in saying that of better quality of goods of the same style is not imported into Los Angeles. The mills are turning out daily a fine stock of blankets, flannels, cashmeres and tweeds, and we are pleased to add are receiving large orders from the principal towns of Arizona. All industries of this kind are of incalculable value to our city and county, and should be hastily enlarged by our municipal authorities and good citizens generally.

Fruit and Farming Land

The undersigned offers for sale, on reasonable terms and in lots to suit, several hundred acre of

FRUIT AND FARMING LAND

IN LOS ANGELES COUNTY.

The above land is well supplied with water, and will be sold with water right and water stock.
Also, a few CHOICE LOTS in the city of Los Angeles, improved and unimproved.
Call on, or address the owner,

H. S. Orme, M.D.,
Los Angeles, Cal.

S. C. HUBBELL,

ATTORNEY AT LAW,

Rooms Nos. 3 & 4, Ducommun's Block,
Cor. Main and Commercial Streets,
LOS ANGELES, CALIFORNIA.

GRAND CENTRAL HOTEL.

Board and Room, $1.25 to $1.75 per day.
Passengers and Baggage conveyed to Hotel FREE.
Polite attention Guaranteed.
G. L. SCHMIDT, Proprietor.

NOEL & FELT,

LIQUORS AND CIGARS,

114 Main Street,
Los Angeles.

WALTER S. MOORE,

FIRE INSURANCE.

Policies written here on

BUILDINGS OF ALL KINDS,
GRAIN AND HAY.

Special rates on growing crops.

36 SPRING STREET.
Central Block, Los Angeles, Cal.

WHITE PROLIFIC CORN!

200 Bushels per Acre.

3 lbs. by mail, - - $1.00

CARTER & RICE, Los Angeles.

WANTED—NATIVE PLANTS, Bulbs, Roots and Seeds.

Collectors and Cultivators will please correspond with the undersigned, stating names, quantities and prices in large quantities.

Especially **Brodeæa Calochortus Cyclobothra Fritillarias Ferns, Amaryllidæ, Belphiletum, Iris, Leucothea Viola**, and all kinds of bulbs.

V. H. HALLOCK, SON & THORPE,
Queens, N. Y.

RIVERSIDE LANDS!

The Riverside Land and Irrigating Company, of San Bernardino County, offer

15,000 ACRES!

Of the most desirable land in Southern California for Semi-Tropical

FRUIT GROWING

AND

Beautiful and Healthful Homes.

These lands are located in the Santa Ana Valley, San Bernardino County, 50 miles southeast of Los Angeles, and 7 miles south of Colton, a station of the Southern Pacific Railroad.

Twenty-eight miles of irrigating canals are now completed, and there is abundant water in the dryest seasons to irrigate all the lands offered by the Company. About 1,000 inhabitants are now in the Colony—enterprising and intelligent people. We have good schools, four church organizations, daily mail, telegraph line, newspaper, etc. Lands are offered at moderate prices and on liberal terms, and no lands are sold but to actual settlers. I invite all seeking homes in this portion of the State to call and see us before purchasing elsewhere. Every facility will be afforded for the examining of the lands offered.

S. C. EVANS, President R. L. & I. Co.

LAKE VINEYARD

LAND AND WATER ASSOCIATION

This Association is now offering for sale on easy terms some of the finest lands in California. They are situated about 1000 feet above the sea, in the rich and beautiful valley of San Gabriel, protected on the north by the Sierra Madre Mountains, while on the west a range of hills and mountains tempers the chill of the sea breeze as it passes over them for forty miles before reaching this locality. This combination of advantages makes it a delightful residence for invalids, while the lands produce all the grains and fruits of the temperate zone, and many of the products of the tropics. The land is supplied from large reservoirs fed by mountain springs, and carried in pipes along all the avenues of the tract which is divided into ten-acre lots, with water rights for every lot. This property is but seven miles from Los Angeles, and near the line of the Southern Pacific Railroad. For prices and full details, address

F. W. WOOD,
Secretary L. V. L. & W. A.

Wm. H. Perry. W. W. Woodworth. S. H. Mott.

PERRY, WOODWORTH & CO.,

STEAM

Sawing, Planing & Molding Mills,

At their Lumber Yards,

76 Commercial St., Los Angeles Cal.

Dealers in

Lumber of all kinds, Plaster, Hair, etc.

Also manufacturers of

Doors, Sash, Blinds, Moldings and cut and turned work of all descriptions.

Dotter & Bradley,

Dealers in

Furniture, Carpets,

Wall Paper, etc.

80, 82, 84 Main Street,

Los Angeles, Cal.

Largest Stock

And

Lowest Prices.

Phineas Banning.

Forwarding

—AND—

Commission Agent,

Wilmington, Los Angeles Co., Cal.

Vessels Towed.
Goods Lightered.

Lumber and Grain stored with accustomed promptness.

BANKING HOUSES.

LOS ANGELES

COUNTY BANK,

MAIN STREET,

LOS ANGELES, CAL.

Capital Stock (paid up) $300,000

J. S. SLAUSON ..... President
H. S. BAKER ..... Vice-President
J. M. ELLIOTT ..... Cashier

DIRECTORS.

J. S. Slauson, A. W. Rowan,
S. A. Holmes, Robert S. Baker,
J. Ewer, Geo. W. Pomeroy.

Receive Savings Bank Deposits.

Buy and sell exchange on San Francisco, New York, London, Paris, Berlin and Frankfort.

Buy exchange on all parts of the United States and Europe.

Receive money on open account and certificate of deposit, and do a general Banking and Exchange business.

COMMERCIAL BANK

OF LOS ANGELES.

Authorized Capital $300,000

E. SELLENBECK ..... President
E. P. SPENCE ..... Cashier

DIRECTORS.

A. H. Weller, W. Woodworth,
S. H. Mott, H. Mahrer,
J. Lazarovich, O. N. Wannop,
E. P. Spence, J. E. Sellenbeck.

This Bank is prepared to receive deposits on open account, issue Certificates of Deposit, and transact a general Banking Business.

Collections made and proceeds remitted at current rates of exchange.

FARMERS' & MERCHANTS' BANK

OF LOS ANGELES.

CAPITAL $500,000

FRANK N. HELLMAN ..... President
L. C. GOODWIN ..... Vice-President
JOHN MILNER ..... Secretary

BOARD OF DIRECTORS.

Frank N. Hellman, John S. Gaskill,
O. W. Childs, H. H. Shaw,
L. C. Goodwin, A. Glassell,
Phil. Daniel, Geo. Arms.

Jos. Mascarel.

Exchange for sale on
NEW YORK, LONDON, DUBLIN, FRANKFORT, PARIS, BERLIN, AND HAMBURG.

Receive Deposits and Issue their Certificates.

Buy and sell
LEGAL TENDERS, GOVERNMENT, STATE, COUNTY AND CITY BONDS.

Will also pay the highest price for gold and silver bullion.

"ABEL STEARNS RANCHOS."

THE

Center of Los Angeles Valley,

Los Angeles Co., Cal.

Embracing Anaheim, Westminister, Artesia, Garden Grove, Etc.

80,000 Acres for Sale

WILL BE

Sold in Tracts to Suit,

AT

Very Low Prices, and on Easy Terms and Low Rate of Interest.

Hundreds of flowing Pipe Wells. Water near the Surface. Rivers on two sides; ever-flowing creek through the tract. Front on the ocean.

Transportation and passage by steamship or railroad.

S. P. Railroad through the Tract.

23 HOURS FROM SAN FRANCISCO.

Convenient to markets and competing lines of shipments for produce, etc., etc.

The unsold land for sale or lease in sections or fractions, by

Alfred Robinson,
120 Sutter Street,
San Francisco, Cal.

Or apply to

Wm. R. Olden,
Anaheim, Los Angeles, Cal.

Or concerning Westminister Colony, to REV. ROBERT STRONG, Westminister, Cal.

Terms, one-fifth cash, balance on interest at 10 per cent. Send for Circulars and Maps.

CENTRAL PHARMACY.

PREUSS & PIRONI,

CHEMISTS, PERFUMERS,
AND
Manufacturing Pharmacists

21 Spring Street, opp. Court House,

Wholesale and Retail Dealers in

DRUGS, MEDICINES
COMBS, BRUSHES,
FINE
Sponges and Soaps,
CHEMICALS,
TRUSSES,
AND
Fancy Articles.

Manufacturers of
Perfumeries, Toilet Articles and Pharmaceutical Preparations.

The Popular P. P. P. P. P. Non-Secret Family Remedies—Formulas on bottles.

The Prescription Department is in charge of competent and experienced Pharmacists.

Orders respectfully solicited and promptly attended to.

NEW STORE.

Jas. C. Bright's

CHEAP STORE

Dry Goods,
Boots, Shoes,
Hats, Caps,
Clothing.

No. 52 MAIN STREET,

Opposite Farmers and Merchants Bank,
LOS ANGELES.

HERDMAN & JONES,

INSURANCE
AND
REAL ESTATE

Under Cosmopolitan Hotel,

LOS ANGELES, CAL.

THE AMERICAN CASH STORE,

48 and 50 Spring St.,

Los Angeles City, Cal.,

Continues to astonish the Country with its LOW PRICES, for the Best of Goods.

We are the only house in Southern California doing strictly and exclusively a Cash Business. We constantly watch the markets, and any lot of good, merchantable goods we find offered at less than regular prices, for cash down, we secure and give our trade the benefit.

We now carry a larger stock and better assortment of goods in our line than ever, and are better shaped to give our customers the most for their money.

Call and examine our stock of

Staple and Fancy Groceries,

PROVISIONS, CROCKERY,

Glassware, etc.

We hold out special inducements in TEAS of our own importation, COFFEES, green and roasted, etc. We roast our own Coffees, and are sure as to what grades we sell, and that it is fresh and as represented in every instance.

C. W. GIBSON, Prop.

San Francisco Office, **205 Sacramento St.**